# Tribal-State Gaming Compact Between Indian Tribe and the State of Arizona

# **APPENDIX A**

TECHNICAL STANDARDS FOR GAMING DEVICES, COMPONENTS, SOFTWARE AND PROGRESSIVE GAMING DEVICES

# APPENDIX A

# TECHNICAL STANDARDS FOR GAMING DEVICES, COMPONENTS, SOFTWARE AND PROGRESSIVE GAMING DEVICES

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#### **APPENDIX A**

# TECHNICAL STANDARDS FOR GAMING DEVICES, COMPONENTS, SOFTWARE AND PROGRESSIVE GAMING DEVICES

# Part I Definitions and Conventions

# Chapter 1. Definitions

- 1. "Award" means jackpot and/or prize.
- 2. "Base amount" means the amount of the progressive jackpot initially offered before increases.
- 3. "Bill acceptor box" means the secured compartment of a gaming device that contains currency, tickets or coupons.
- 4. "Bonus round" means a portion of a game cycle that occurs after the initial screen and does not constitute the initiation of a new game cycle.
- 5. "Control program" means software that operates a gaming device's functions.
- 6. "Credit" means the unit of value that is used to play a game on a gaming device or that may be redeemed for other value.
- 7. "Critical files" are those files which affect a gaming device's play, operation, or outcome.
- 8. "Distributor" means a person who obtains a gaming device, component or software from a manufacturer or supplier and intends to furnish it to the Tribe for a gaming purpose.
- 9. "Error condition" means:
  - a) coin-out jam;
  - b) hopper empty or timed out;
  - c) hopper runaway or extra coin paid out;
  - d) RAM error;
  - e) low RAM battery, for batteries external to the RAM itself, or low power source;
  - f) program error or authentication mismatch;
  - g) reverse coin-in;
  - h) reel spin errors;
  - i) coin-in jam;
  - j) door open (including bill acceptor);
  - k) currency-in jam; and
  - I) power reset.
- 10. "Gaming device" means a contrivance that allows a person to play a game of chance, which may be affected by skill, and that is activated upon receipt of some form of consideration and which awards a jackpot or prize. Gaming device includes associated equipment that affects play of the game, outcome of the game, player safety or the MCS.
- 11. "Gaming device file" means a database of every gaming device in operation, including at least the following information for each gaming device:
  - a) unique interface element/gaming device identification number;
  - gaming device identification number as assigned by the gaming facility;
  - c) denomination of the gaming device;
  - d) theoretical hold of the gaming device; and
  - e) control programs within the gaming device.
- 12. "Incremental amount" means the difference between the amount of a progressive jackpot and its base amount.

- 13. "Jackpot" means a win of cash or its equivalent that results in a handpay.
- 14. "Joint Monitoring System" or "JMS" means a system utilized by the Tribal Gaming Office and the State Gaming Agency to access MCS data on a real time read-only basis from all On-line Monitoring and Control Systems.
- 15. "Laboratory" means an independent gaming test laboratory licensed by the Tribal Gaming Office and certified by the State Gaming Agency.
- 16. "Logic area" means a locked cabinet area which houses electronic components that have the potential to influence the random number generator critical to the operation of a gaming device.
- 17. "Manufacturer" means a person who manufactures, produces or assembles a gaming device, component or software and who intends to furnish it to a distributor, supplier or the Tribe.
- 18. "MCS critical files" means those files in the MCS that affect the collection, storage and comparison of gaming device play and operation.
- 19. "Mechanical based RNG games" are games that use the laws of physics to generate the outcome of the game.
- 20. "Modify" or "Modification" means a change or alteration in an approved gaming device that affects the manner or mode of play or the percentage paid by the gaming device, including a change in control or graphics programs, but not a:
  - a) conversion from one approved mode of play to another approved mode of play (except denomination changes);
  - b) replacement of one component with another preapproved component; or
  - c) rebuilding of a previously approved gaming device with preapproved components.
  - "Modify" or "Modification" includes any conversion, software change, replacement, or any alteration to an MCS that results in interruption of communication between a gaming device and the MCS. "Modify" or "Modification" does not include a repair.
- 21. "On-line Monitoring and Control System" (MCS) means a game management system that regularly monitors each gaming device via a real time defined communication protocol.
- 22. "Par sheet" means a document that depicts the possible outcomes from the play of a gaming device, the probability of occurrences of each, the contribution of each winning outcome to the payback of a gaming device, theoretical hold, and other data applicable to a gaming device.
- 23. "Priority events" are:
  - a) loss of communication with interface element;
  - b) loss of communication with gaming device;
  - c) memory corruption of the interface element; and
  - d) RAM corruption of a gaming device.
- 24. "Prize" means a win of merchandise or other items of value other than cash or its equivalent.
- 25. "Progressive Gaming Device" means a gaming device that has an increasing jackpot, based on a function of credits that are bet. This includes games that award progressive jackpots or a "pool" based on criteria other than obtaining winning symbols on the gaming device, such as "mystery jackpot." However, this does not include games that incorporate a bonus feature as part of the game theme, which offers jackpots that increase as the game is played and, as well, is not configurable.
- 26. "Progressive jackpot" means a payoff that increases automatically as gaming devices are played.
- 27. "Real time" means any time at, or before, the end of the relevant polling cycle.
- 28. "Significant events" consist of standard and priority events.
- 29. "Slot tournament" means an organized event that permits a player to either purchase or be awarded the opportunity to engage in competitive play against other players.
- 30. "Standard events" are:
  - a) power resets;

- b) power failure;
- c) hand pay conditions;
- d) gaming device award;
- e) cancelled credit hand pay;
- f) progressive jackpot;
- g) door openings, including:
  - 1. slot door;
  - 2. drop door;
  - bill acceptor box;
  - 4. ticket box; and
  - logic door.
- h) coin or token-in errors;
- i) coin or token jams;
- j) reverse coins or tokens-in;
- k) bill acceptor errors;
- bill acceptor jam;
- m) gaming device low RAM battery error;
- n) reel spin errors, with individual reel number identified;
- o) coin or token-out errors;
- p) hopper jams;
- q) hopper runaways or extra coins paid out;
- r) hopper empties;
- s) printer errors (if printer supported);
- t) bill acceptor box removal; and
- u) logic board removal.
- 31. "Ticket box" means the secured compartment of a gaming device that contains tickets.

# Chapter 2. Conventions

- 1. Time shall be expressed in local 24 hour format.
- 2. Dates shall be expressed in local month, day, year format.
- 3. Where a deadline expressed in a number of days is imposed, weekends and state and tribal holidays are not counted in the calculation of time.
- 4. Unless the context clearly dictates otherwise, the effect of words written in the singular is the same as if they had been written in the plural and the effect of words written in the plural is the same as if they had been written in the singular.
- 5. Upon mutual agreement the Tribe and the State Gaming Agency may waive any requirement of this Appendix.

# Part II Gaming Device Requirements

# Chapter 1. Hardware

# 2.1.1 Physical Security.

Each gaming device shall withstand forced illegal entry which would not leave behind evidence of the attempted entry, unless such entry causes a significant event that when manually reset does not affect the subsequent play or any other play, award or aspect of the game.

# 2.1.2 Player Safety.

All gaming devices shall not subject a player to any physical hazards. Gaming devices, shall comply with the UL, FCC and OSHA standards in effect at time of manufacture, and such safety and electromagnetic interference and compatibility testing as may be required under applicable state and/or federal statute, regulation, law or act..

# **Environmental Effects on Game Integrity**

# 2.1.3 Game Integrity Standard.

A laboratory shall determine whether or not outside influences affect game fairness to the player or create cheating opportunities. A gaming device shall be able to withstand the following tests, resuming game play without operator intervention:

- a) Random Number Generator.
  - The random number generator and random selection process shall be impervious to influences from outside the device, including, but not limited to, electro-magnetic interference, electro-static interference, and radio frequency interference;
- b) Electro-Magnetic Interference.
  - Gaming devices shall not create electronic noise that affects the integrity or fairness of neighboring gaming devices or associated equipment;
- c) Electro-Static Interference.
  - Protection against static discharges requires that the gaming device's conductive cabinets be earthed in such a way that static discharge energy shall not damage, or inhibit the normal operation of the electronics or other components within the gaming device. Gaming devices may exhibit temporary disruption when subjected to a significant electro-static discharge greater than human body discharge, but they shall exhibit a capacity to recover and complete any interrupted play without loss or corruption of any control or data information associated with the gaming device. The tests shall be conducted with a severity level of a minimum of 27KV air discharge;
- d) Radio Frequency Interference (RFI).
  - Gaming devices shall not divert from normal operation by the application of RFI at a frequency range from 27 to 1000 MHZ with a field strength of three volts per meter;
- e) Magnetic Interference.
  - Gaming devices shall not be adversely affected by magnetic interference. The Tribal Gaming Office shall obtain from the manufacturer, and supply to the State Gaming Agency, any documentation if the device has had magnetic interference testing against any recognized standard; and
- f) Liquid Spills.
  - Liquid spills applied to the outside of a gaming device shall not affect the normal operation of the gaming device, the integrity of the material or information stored inside the cabinet, or the safety of the players operating the equipment. If liquids are spilled into a coin acceptor or bill acceptor, the only degradation permitted is for the acceptor to reject all inputs or generate an error condition.

# **Hardware Requirements-Other**

# 2.1.4 General Statement.

Each gaming device shall meet the following hardware requirements:

- a) be controlled by one or more microprocessors or the equivalent in such a manner that the game outcome is completely controlled by the microprocessor or a mechanical device;
- b) include a labeled on/off switch that controls the input power and is located in a secure place inside the gaming device; and
- c) in the event that any gaming device is incapable of continued proper operation, it shall perform an orderly shutdown without loss of game status, accounting, and security event data.

# 2.1.5 Cabinet Wiring.

Each gaming device shall be designed so that power, security, and data cables are not accessible to the general public

# 2.1.6 Gaming Device Identification.

The manufacturer shall permanently affix to each gaming device a readily viewable identification plate to the exterior of the main cabinet. This plate shall include the following information:

- a) the manufacturer;
- b) a unique serial number;
- c) the gaming device model number; and
- d) the date of manufacture.

# 2.1.7 Tower Light or Audible Alarm.

Each gaming device shall have a light located conspicuously on top of the gaming device that automatically illuminates when a player has won an amount or when a player is redeeming credits that the gaming device cannot automatically pay or an error condition has occurred. Bar-top gaming devices may, instead, use an audible alarm.

# 2.1.8 Diverter and Drop Box Requirements.

The software in all gaming devices that accept coins or tokens shall ensure that the diverter directs coins to the hopper, or to the drop box when the hopper is full. The hopper full detector shall be continuously monitored to determine whether a change in diverter status is required. If the status of the detector changes, the diverter shall operate as soon as possible or within 10 games after the status change, without causing a disruption of coin flow or creating a coin jam. Gaming devices without a hopper shall always divert coins to the drop box.

# 2.1.9 Drop Bucket or Box.

Each gaming device equipped to accept coins or tokens shall meet the following requirements:

- a) Contain a separate drop bucket or box to collect and retain all items of value:
- b) A drop bucket or box shall be housed in a locked compartment separated and keyed differently from any other compartment of the gaming device;
- c) Drop doors shall have door access sensors which detect and report all door openings to the MCS; and [sic]

# **External Doors/Compartments Requirements**

# 2.1.10 General Requirements.

- a) The interior of a gaming device shall not be accessible when all doors are closed and locked;
- b) Doors, including their seals and hinges, shall withstand illegal efforts to gain access to the inside of a gaming device and shall leave evidence of tampering if an illegal entry is attempted;
- c) The seal between the cabinet and the door of a locked area shall prevent the entry of objects;
- d) Gaming devices shall have a clearly visible light that automatically illuminates when a door to the gaming device, or a door to any devices connected to the gaming device, are opened and may effect the operation of the gaming device. All bar-top gaming devices shall have a light alarm or an audio door alarm installed. The alarm shall activate when the inside of a gaming device is accessed, with power on;
- e) All external doors shall be locked and keyed differently from other gaming device compartments and monitored by door access sensors, which shall detect and report all external door openings to the MCS.
- f) It shall not be possible to insert an object into a gaming device that will disable a door open sensor when a gaming device's door is shut, without leaving evidence of tampering;
- g) The sensor system shall register a door as being open when the door is moved from its fully closed and locked position.

h) All areas of a gaming device that hold cash, currency or other means of value shall be monitored by sensors that report to the MCS.

# The Logic Door and Logic Area

# 2.1.11 General Statement.

Each logic area shall be locked and keyed differently than any other gaming device compartment. Each gaming device shall communicate to the MCS the number of times the microprocessor compartment has been opened if switches have been installed for this purpose.

# 2.1.12 Electronic Components.

The following electronic components shall be housed in one or more logic areas:

- a) those involved in the operation and calculation of game play;
- b) those involved in the operation and calculation of game result determination;
- c) those involved in the calculation of game display;
- d) those involved in display program storage except for passive display equipment;
- e) all interface element and related storage components except the communication board for the MCS may reside outside a gaming device in a locked secured area;
- f) all FLASH memory devices that affect the game play function; and
- g) any other device, either hardware or software, that determines or transmits game outcome.

# **Coin and Currency Compartments**

#### 2.1.13 General Statement.

The coin and currency compartments shall be locked and keyed differently from the main cabinet area, except that a separate compartment shall not be required for coins maintained in a drop hopper.

# 2.1.14 Access to Currency.

Access to the currency storage area shall be secured and fitted with separate sensors that indicate that a door has opened or closed and that a bill acceptor box has been removed. Access to the currency storage area shall be through two levels of locks: one on the relevant outer door, and one on the currency compartment door. The bill acceptor box contents key shall be keyed differently from the bill acceptor box release key.

# Program Memory, RAM and Non-Volatile Devices Used to Store Program Memory

#### 2.1.15 Non-Volatile RAM Requirements.

The following are the requirements for RAM:

- a) A battery back-up, or equivalent, shall be installed on all electronic meters and shall maintain the accuracy of all information required for 180 days after power is removed from a gaming device. The back-up device shall be kept within the logic area;
- b) If the battery back up is used as an "off chip" battery source, it shall re-charge itself to its full potential in a maximum of 24 hours. The shelf life shall be at least five years;
- c) RAM that uses an off-chip back-up power source to retain its contents when the main power is switched off shall have a detection system which provides a method for software to interpret and act upon a low battery condition; and
- d) Clearing non-volatile memory shall only be possible by accessing the logic area in which it is housed.

#### 2.1.16 Function of RAM Reset.

Following the initiation of a RAM reset procedure, the game program shall execute a routine which initializes RAM to the default state.

# 2.1.17 Default Reel Position or Game Display.

The base game default reel position or default game display after a RAM reset or upon entering game play mode shall not be the top award on any selectable line.

# 2.1.18 Configuration Setting.

A change to the denomination shall be done by a secure means, which includes accessing the logic area. It shall not be possible to change a configuration setting that causes an obstruction to the electronic accounting meters without a RAM clear.

# 2.1.19 Requirements for Program Storage Devices.

All program storage devices shall clearly identify the software and revision level of the information stored on the devices.

# 2.1.20 Requirements for Downloadable Software.

The method of downloading shall be consistent with the manufacturer guidelines. Downloadable software is only permissible for sounds, graphics, marketing or promotional messages, coin comparators, bill validators and ticket printers.

# **Contents of Critical Memory**

#### 2.1.21 General Statement.

Critical memory is the media that stores all critical files including but not limited to:

- a) all required electronic meters
- b) current credits:
- c) gaming device/game configuration data;
- d) information pertaining to the last five plays with the RNG outcome (including the current game, if incomplete); and
- e) the last normal status the gaming device software was in before interruption.

# **Maintenance of Critical Memory**

#### 2.1.22 General Statement.

Critical memory shall enable errors to be identified and corrected.

#### 2.1.23 Comprehensive Checks.

Comprehensive checks of critical memory shall be made during each gaming device power up cycle, main door opening and hand pays. Control programs shall test for possible game data and game function corruption caused by failure of the critical memory. Test methodology shall detect 99.99 % of all failures.

#### 2.1.24 Control Program.

The control program shall ensure the integrity of game play and outcome.

#### 2.1.25 Program Storage Devices.

All program storage devices shall be validated during the following conditions:

- a) power up; and
- b) the first time the files are loaded for use (even if only partially loaded).

# **Unrecoverable Critical Memory**

#### 2.1.26 General Statement.

An uncorrectable corruption of RAM which affects game play, game outcome or game integrity shall result in a RAM error and requires a RAM clear. The RAM shall not be cleared automatically but shall require a full RAM clear performed by a person authorized by the Tribal Gaming Office.

# Write Once Read Many (WORM) Program Storage

#### 2.1.27 General Statement.

A WORM used as a program storage device shall only contain the program files that operate the game.

# 2.1.28 Utilizing Integrity Check.

The control program shall utilize an integrity check, preferably a secured hashing method such as MD5 or SHA, to authenticate that the program and/or support files have not been corrupted or altered prior to use or loading.

#### 2.1.29 CD-ROM Re-Writeable Disk Prohibited.

A re-writeable CD-ROM disk shall not be used.

#### 2.1.30 CD-ROM Session Closed.

All CD-ROM sessions shall be closed to prevent any further writing on all CD-ROM disks.

#### 2.1.31 Write Protection.

All WORM storage media shall be write-protected.

# **Printed Circuit Board (PCB)**

# 2.1.32 PCB Identification Requirements.

Requirements for PCB identification:

- a) each printed circuit board (PCB) shall be identifiable by a name or number and revision level;
- b) the top assembly revision level of the PCB shall be identifiable (if track cuts and/or patch wires are added to the PCB, then a new revision number or level shall be assigned to the assembly); and
- c) circuit board assemblies shall conform functionally to the documentation and the certified versions of those PCBs that were evaluated and certified by the laboratory.

# Switches, Jumpers, Patch Wires and Track Cuts

#### 2.1.33 General Statement.

Key chips or equivalent secure devices shall be used to alter paytables, game denomination, or payout percentages in the operation of a gaming device. Switches and jumpers shall not be used to alter paytables, game denomination, or payout percentages in the operation of a gaming device unless preapproved for such functions. All switches and jumpers shall be housed within a logic area. Patch wires and track cuts may be used but only after laboratory certification.

# **Mechanical Components Used for Displaying of Game Outcomes**

#### 2.1.34 General Statement.

Each gaming device that has mechanical or electro-mechanical components which are used for displaying game outcomes shall comply with the following:

- a) Electro-mechanically controlled displays shall have closed loop control that enables the software to detect and report a malfunction or an attempt to interfere with the correct operation of the gaming device.
- b) Mechanical assemblies shall have some mechanism that ensures the correct mounting of reels' artwork, if applicable;
- c) Displays of winning symbol combinations shall match up with pay lines or other indicators; and
- d) A mechanical assembly shall not be obstructed by any other components.

#### Video Monitors/Touch Screens

# 2.1.35 General Statement.

Each video gaming device shall meet the following conditions:

- a) touch screens shall be accurate and, once calibrated, shall maintain that accuracy for at least the manufacturer's recommended maintenance period;
- b) a touch screen shall be able to be re-calibrated without access to the gaming device cabinet other than opening the main door; and
- c) there shall be no undocumented buttons or touch points anywhere on the screen.

# Coin Comparator and Bill Acceptors and Other Means of Inserting Value into a gaming device

# 2.1.36 Coin Comparators.

If a gaming device uses a coin comparator, the acceptor shall accept or reject a coin or token on the basis of metal composition, mass, composite makeup, or equivalent security. In addition, the following conditions shall me met:

- a) Coin Comparator Security Features/Error Conditions.
  - The coin comparator shall prevent the use of cheating methods such as slugging (counterfeit coins), stringing (coin pullback), the insertion of foreign objects and other manipulation;
- b) Rapidly Fed Coins.
  - The coin comparator shall accept rapidly-fed coins or piggy backed coins so that occurrences of cheating are eliminated;
- c) Direction Detectors.
  - The coin comparator shall have suitable detectors for determining the direction and the speed of coin travel in the receiver. If a coin traveling at too slow of a speed or improper direction is detected, the gaming device shall enter an error condition and display an error condition for at least 30 seconds or require clearance by an attendant before play resumes;
- d) Invalid Coins.
  - Coins deemed invalid by the acceptor shall be rejected to the coin tray and shall not be counted as credits:
- e) Coin Acceptance Conditions.
  - Acceptance of coins for crediting to the credit meter shall only be possible when the gaming device is enabled for play;
- f) Credit Meter Update on Coin Insertion.
  - Each coin accepted shall register the actual monetary value or a number of credits on the player's credit meter for the current game or bet meter. If registered directly as credits, the conversion rate shall be clearly stated.

# 2.1.37 Bill Acceptors.

Each bill acceptor shall detect the entry of valid currency, coupons, or tickets and provide a method to enable the gaming device software to interpret and act appropriately upon valid and invalid inputs. The input system shall be constructed in a manner that protects against vandalism, abuse, or fraudulent activity. Credits only shall be registered when:

- a) the currency, coupon or ticket has passed the point where it is accepted and stacked; and
- b) the acceptor has sent an "irrevocably stacked" message to the gaming device.

#### 2.1.38 Communications.

All bill acceptors shall:

- a) communicate to the gaming device using a bi-directional protocol; or
- b) communicate to the MCS's Slot Machine Interface Board (SMIB) using a bi-directional protocol.

# **Gaming Device Metering of Bill Acceptor Events**

#### 2.1.39 General Statement.

Each gaming device containing a bill acceptor shall maintain sufficient electronic metering to report the following:

- a) total monetary value of all items accepted;
- b) total number of all items accepted; and
- c) a breakdown of currency, coupons and tickets accepted:
  - 1. for currency the game shall report the number of bills accepted for each bill denomination:

2. for coupons and tickets the game and/or the SMIB shall have separate meters that report the number of coupons and tickets accepted.

# 2.1.40 Bill Acceptor Recall.

Each gaming device that uses a bill acceptor shall retain in the gaming device's memory and display the denomination of the last five bills inserted.

# **Bill Acceptor Error Conditions**

#### 2.1.41 Error Conditions.

Each gaming device or bill acceptor shall detect and display the following bill acceptor error conditions:

- a) bill acceptor full the bill acceptor shall disable itself. The gaming device shall not generate an error message when the bill acceptor box is full;
- b) bill acceptor jams;
- c) bill acceptor door open; and
- d) bill acceptor box removed.

# 2.1.42 Power Failure During Bill Acceptance/Validation.

If a power failure occurs during acceptance, the bill acceptor shall give proper credits for the items inserted or return the items to the player, except for the very small duration after the bill has been accepted and that message is in route to the gaming device logic when a power failure occurs.

#### 2.1.43 Self Test.

The bill acceptor device shall perform a self-test at each power up. In the event of a self-test failure, the bill acceptor shall automatically disable itself.

# **Bill Acceptor Requirements**

# 2.1.44 Bill Acceptor Requirements.

Interconnecting cables from the bill acceptor to the gaming device or SMIB shall not be exposed externally. No bill acceptor shall be adversely affected by the following:

- a) electro-static discharge;
- b) power surges;
- c) radio frequency interference;
- d) electro-magnetic interference; or
- e) environmental extremes;

# **Bill Acceptor Box Requirements**

#### 2.1.45 General Statement.

Each bill acceptor shall have a bill acceptor box and all accepted items shall be deposited into the bill acceptor box. The bill acceptor box shall be attached to the gaming device in such a manner so that it cannot be removed by physical force and shall comply with the following:

- a) the bill acceptor shall have a "bill acceptor full" sensor;
- b) the bill acceptor box door shall be keyed differently from the main door. A separate key also shall be required to remove the items from the bill acceptor box; and
- c) a tower light or alarm shall be activated whenever there is access to the bill acceptor door or the bill acceptor box has been removed.

# **Credit Redemption**

# 2.1.46 Credit Redemption.

Available credits may be collected from a gaming device by the player pressing a collect button at any time other than during:

- a) a game being played;
- b) audit mode;

- c) any door open;
- d) test mode;
- e) a credit meter or win meter incrementation, unless the entire amount is placed on the meters when the collect button is pressed; or
- f) an error condition.

#### 2.1.47 Cancel Credit.

If credits are collected, and the total credit value is greater than or equal to the hopper limit for hopper games or printer limit for printer games, the gaming device shall lock up until the credits have been paid, and the handpay condition is cleared by an attendant.

# **Hoppers**

# 2.1.48 Hoppers & Hopper Error Conditions.

The hopper shall interface in a manner that allows the gaming device's and/or SMIB's control program to monitor the hopper mechanism at all times and identify at least the following events:

- a) extra coin paid; and
- b) hopper jam or empty.

# 2.1.49 Manipulation.

The hopper shall be resistant to manipulation by the insertion of a light source or any foreign object.

#### **Printers**

# 2.1.50 Payment By Ticket Printers.

Each gaming device that has a printer used to make payments may pay the player by issuing a printed ticket.

#### 2.1.51 Tickets.

Each gaming device and/or SMIB shall either keep a duplicate copy or print only one copy to the player and have the ability to retain the information of the last 35 tickets in and 35 tickets out. A system shall be used to validate the ticket, and the MCS shall retain ticket information at least as long as the ticket is valid at that gaming facility.

#### 2.1.52 Printer Location.

For each gaming device equipped with a printer, the printer shall be located in a locked area of the gaming device but not in the logic area or the drop box.

#### 2.1.53 Printer Error Conditions.

A printer shall have mechanisms to allow software to interpret and generate the following error messages:

- a) out of paper;
- b) paper low;
- c) printer jam;
- d) printer failure; and
- e) printer disconnected.

#### **Electro-mechanical Meters**

# 2.1.54 General Statement.

Gaming devices may use electro-mechanical meters. When electro-mechanical meters are utilized they shall adhere to sections 2.1.55 and 2.1.56.

#### 2.1.55 Electro-mechanical Meter Configuration.

Electro-mechanical meters shall:

- a) be manufactured in such a way that prevents access to the internal parts without destroying the meter;
- b) not decrement;
- c) not be able to be reset except in the case of rollover;
- d) register at least six decimal digits;
- e) be located within a gaming device;
- f) be at least 99% accurate; and
- g) be labeled and arranged top to bottom or left to right as follows:
  - 1. coin in;
  - coin out;
  - 3. coin to drop;
  - 4. games played; and
  - 5. jackpot.

# 2.1.56 Electro-mechanical Meter Operation.

Electro-mechanical meters shall increment in units of credit and immediately commence incrementing upon the occurrence of the event they are recording.

#### **Audible Alarms**

# 2.1.57 Audible Alarm Requirements.

Each gaming device that has an audible alarm shall:

- a) signal door open events; and
- b) be adjustable only via an audit mode or diagnostic mode.

# Chapter 2 Ticket Validation System

# **Ticket Information**

# 2.2.1 General Statement.

A ticket shall contain at least the following printed information:

- a) the gaming facility or site at which the ticket is valid:
- b) gaming device number (or cashier number if supported);
- c) date and time;
- d) alpha, numeric, or alpha-numeric dollar amount of the ticket;
- e) ticket sequence number;
- f) validation number;
- g) bar code or any machine readable code representing the validation number;
- h) type of transaction or other method for differentiating ticket types; and
- i) indication of an expiration period which shall be no less than 60 days from date of issue.

# 2.2.2 Ticket Types.

If a gaming device loses communication with the validation system then:

- a) the gaming device shall not issue more than one ticket while not in direct communication with the validation system. When a player cashes out of a gaming device that has lost communication with the validation system and which has already printed one ticket since losing communication, the gaming device shall lockup and require that the player be paid using the existing and approved handpay process, upon completion of which the gaming device is reset; or
- b) if gaming device ticket generation is supported while not connected to the validation system, a ticket system shall generate at least two different types of tickets, on-line and off-line. Each type

shall be denoted respectively by ticket generation either when the validation system and gaming device are properly communicating or when the validation system and gaming device are not communicating properly. When a player cashes out of a gaming device that has lost communication with the validation system, the gaming device shall lockup and, after reset, print an off-line ticket. The off-line ticket shall be visually distinct from an on-line ticket either in format, content or both while still maintaining all information required of section 2.2.1 and shall not be accepted by any gaming device or validation terminal.

# **Ticket Issue and Redemption**

# 2.2.3 Ticket Issuance.

All issued tickets shall be tracked and verified by a validation system.

# 2.2.4 On-line Ticket Redemption.

When a player seeks to obtain credits on a gaming device by inserting a ticket, no credits may be issued to the gaming device until ticket validation has occurred.

# 2.2.5 Cashier/Change Booth Operation.

All ticket validation terminals shall be user and password controlled.

# 2.2.6 Validation Receipt Information.

A ticket validation receipt shall contain at least the following printed information:

- a) gaming device number;
- b) validation number;
- c) date and time paid;
- d) amount validated to be paid; and
- e) cashier identifier.

#### 2.2.7 Invalid Ticket Notification.

The validation system or MCS shall have the ability to identify and notify the cashier of the following occurrences:

- a) a serial number cannot be found on file;
- b) a ticket has already been paid;
- c) the amount of a ticket differs from the amount on file; or
- d) any other error condition causing the ticket to be invalid

#### Reports

# 2.2.8 Reporting Requirements.

The validation system or MCS shall generate at least the following reports:

- a) tickets issued;
- b) tickets redeemed;
- c) tickets outstanding;
- d) tickets dropped;
- e) jackpot tickets issued;
- transaction detail, which shall be available from the validation system, showing all tickets generated by a gaming device and all tickets redeemed by a ticket validation terminal or a gaming device; and
- g) cashier report detailing the sum of tickets paid by the cashier or validation unit.

#### Security

# 2.2.9 Database and Validation Component Security.

Once validation information is stored in the validation system database, the data shall not be altered in any way. The validation system database shall be encrypted or password-protected to prevent

unauthorized access and shall provide a non-alterable user audit trail. Furthermore, the normal operation of any device that holds ticket information shall not have any options or methods that can compromise ticket information. Any device that holds ticket information in its memory shall not allow removal of the information unless it has first transferred that information to the validation system database or to another secured component of the validation system.

# Chapter 3 Software

# **Rules of Play**

# 2.3.1 **Display**.

a) Payglass or Video Display.

Paytables displayed on payglasses (including video displays) shall be clearly identified and shall accurately state the rules of the game and the award that will be paid to the player if the player obtains a specific win. The payglasses or video displays shall clearly indicate whether awards are designated in denominational units, currency, or some other unit. The gaming device shall reflect any change in jackpot value that may occur in the course of play. This may be accomplished with a digital display in a conspicuous location of the gaming device. All paytable information relevant to the game selected shall be accessible by a player prior to committing to a bet. The rules of the game shall not be written in a manner that confuses a reasonable player. The payglass artwork shall display sufficient information to the player to indicate all available options and instructions. The game shall always follow the predefined set of rules. Each gaming device that offers a jackpot paid over time shall display notice of the following to all players:

- 1. that the displayed jackpot will be paid over time and not in one lump sum; and
- 2. the period of time over which the payments will be made.
- b) Upcoming wins.

The game shall not advertise "upcoming wins," for example three times pay coming soon;

c) Fever Mode.

Each game which features a "fever" mode (a mode which gives the player an opportunity for the following "X" number of plays to achieve a certain winning combination with the pay-off being some number of bonus credits) shall include the number of plays remaining for the "fever" mode pay-off during each game that fever mode is present. The same shall apply to free games awarded as a result of a previous event; and

d) Multiple Decks of Cards.

Any games which utilize multiple decks of cards shall clearly indicate to the player the number of card decks in play.

# 2.3.2 Information to be Displayed.

Each gaming device shall display the following information to the player at all times the gaming device is available for player input:

- a) the player's current credit balance;
- b) all possible winning outcomes, whether displayed directly or as a menu item:
- c) win amounts for each possible winning outcome, whether displayed directly or as a menu item; The following information shall be required as indicated:
- a) the current bet amount. This is only during the base game or if the player can add to the bet during the game;
- b) the amount won for the last completed game (until the next game starts or betting options are modified); and
- c) the player options selected for the last completed game (until the next game starts or a new selection is made).

#### 2.3.3 Multi-Line Games.

- a) Each gaming device with multi-line games shall clearly indicate the individual line to be played so that a reasonable player knows which line is being bet on; and
- b) The winning playline shall be clearly identifiable by a reasonable player (e.g., on a video game it may be accomplished by drawing a line over the symbols on the playline and/or the flashing of winning symbols and line selection box). Where there are wins on multiple lines, each winning playline shall be clearly indicated.

# 2.3.4 Game Cycle.

The placing of an initial wager shall initiate the game cycle. The entering of money or an item of monetary value into a gaming device shall not by itself initiate game play. Wagers from the player's credit meter during a game cycle shall not exceed the maximum wager allowed by the Compact. A game shall be considered completed when the final transfer to the player's credit meter takes place or when all credits wagered or won that have not been transferred to the credit meter are lost. The following are all considered to be part of a single game cycle:

- a) games that trigger a free game feature and any subsequent free games;
- b) "second screen" bonus round;
- c) rounds with player choice;
- d) rounds where the rules permit wagering of additional credits; and
- e) Double-up or Gamble features.

# Random Number Generator (RNG) Requirements

#### 2.3.5 Game Selection Process.

- a) All Combinations and Outcomes Shall Be Available.
  - Each possible variation, permutation and combination of game elements shall be available for random selection at the initiation of each play.
- b) No Near Miss.
  - After selection of the game outcome, a gaming device shall not make a variable secondary decision, which affects the result shown to the player. For instance, the RNG chooses an outcome that the game will be a loser. The game shall not substitute a particular type of loser to show to the player. This shall eliminate the possibility of simulating a "Near Miss" scenario where the odds of the top award symbol landing on the payline are limited but frequently appear above or below the payline;
- c) No Corruption from Other Equipment.
  - Each gaming device shall use communication protocols that protect the RNG and random selection process from influence by other equipment.

# Random Number Generator (RNG) Requirements

#### 2.3.6 General Statement.

Selection of game symbols or production of game outcomes by an RNG shall:

- a) be statistically independent;
- b) conform to the desired random distribution;
- c) pass necessary statistical testing; and
- d) be unpredictable.

# 2.3.7 Applied Tests.

The laboratory shall conduct tests necessary to determine whether the random values produced by the RNG achieve a confidence level of at least 95%. These tests may include, but are not limited to:

- a) chi-square test;
- b) equi-distribution (frequency) test;
- c) gap test;

- d) overlaps test;
- e) poker test;
- f) coupon collector's test:
- g) permutation test;
- h) Kolmogorov-Smirnov test;
- i) adjacency criterion tests;
- j) order statistic test;
- k) runs tests (patterns of occurrences shall not be recurrent);
- I) interplay correlation test;
- m) serial correlation test potency and degree of serial correlation (outcomes shall be independent of the previous game);
- n) tests on subsequences; and
- o) the period of the RNG shall be adequate in size for the applications for which it is designed.

#### 2.3.8 Mechanical Based RNG Games.

Mechanical based RNG games shall meet the laboratory multiple iteration test to verify randomness.

# 2.3.9 Background RNG Activity Requirement.

The RNG shall be cycled continuously in the background between games and during game play at a speed that cannot be timed by the player.

# 2.3.10 RNG Seeding.

The first seed shall be randomly determined by an uncontrolled event. After every game there shall be a random change in the RNG process. It is permissible not to use a random seed only if the manufacturer provides sufficient assurance that games will not synchronize.

#### 2.3.11 Live Game Correlation.

Unless clearly indicated otherwise on the payglass, where a gaming device plays a game that is similar to a live game, the same probabilities associated with the live game shall be evident in the simulated game. For gaming devices that are not simulating a live game, the mathematical probability of a symbol appearing in a position in any game outcome shall be constant.

#### 2.3.12 Card Games.

The conditions for games depicting cards being drawn from one or more decks shall be the following:

- a) at the start of each game or hand, the first hand of cards shall be drawn fairly from a randomly-shuffled deck or decks; replacement cards shall not be drawn until needed;
- b) cards once removed from the deck shall not be returned to the deck except as provided by the rules of the game depicted; and
- c) as cards are removed from the deck they shall be used immediately as directed by the rules of the game (i.e., the cards are not to be discarded due to adaptive behavior by a gaming device).

# 2.3.13 Ball Drawing Games.

The conditions for games depicting balls drawn shall be the following:

- a) at the start of each game, only balls applicable to playing the game shall be depicted. For games with bonus features and additional balls that are selected, the balls shall be chosen from the original selection without duplicating an already chosen ball;
- b) the balls shall not be re-mixed except as provided by the rules of the game depicted; and
- c) as balls are drawn, they shall be used immediately as directed by the rules of the game (i.e., the balls are not to be discarded due to adaptive behavior by a gaming device).

#### 2.3.14 Scaling Algorithms.

If a random number with a range shorter than that provided by the RNG is required for some purpose within a gaming device, the method of re-scaling, (i.e. converting the number to the lower range) shall

ensure that all numbers within the lower range are equally probable. If a particular random number selected is outside the range of equal distribution of re-scaling values, the gaming device may discard that random number and select the next random number in sequence for the purpose of re-scaling.

# 2.3.15 RNG Scaling and Mapping Algorithms.

- a) All game outcomes shall be determined using an RNG. It is permissible that the RNG make use of a scaling algorithm. This scaling algorithm shall in no way produce outcomes that are predictable.
- b) The conversion of raw random numbers to individual game outcomes (i.e.: symbols, cards, keno spots, etc.) shall be fairly distributed.

#### 2.3.16 Mechanical Based RNG Games.

Mechanical based RNG games shall meet the requirements of the Compact and this Appendix with the exception of Sections 2.3.9 (relating to continuously cycling in the background), 2.3.10 (relating to seeding) and 2.3.14 (relating to scaling algorithms) which dictate the requirements for electronic RNGs. In addition to the requirement of section 2.3.8, mechanical based RNG games shall meet the following conditions:

- a) the components shall be constructed of materials that ensure consistency of randomness:
- b) the properties of physical items used to determine the game outcome shall not be altered; and
- c) the player shall not have the ability to physically interact with the mechanical portion of the game.

# Payout Percentages, Odds and Prizes

# 2.3.17 Software Requirements for Percentage Payout.

During the expected lifetime of the game, including bonus games, each game shall theoretically payout a minimum of 80% for games requiring no skill and 83% for games of skill. During the expected lifetime of the game, including bonus games, the video game of keno shall theoretically payout a minimum of 75%. Each game shall also meet the following conditions:

- a) Optimum Play Used for Skill Games. Games that may be affected by player skill shall meet the theoretical minimum when using a method of play that will provide the greatest return to the player over a period of continuous play.
- b) Minimum Percentage Requirement Met at All Times. The minimum percentage requirement shall be met at the end of all paytable periods. The minimum percentage requirement shall be met throughout the range of each non-linear paytable, including its lowest end (e.g., if a game is continuously played at a minimum bet level for its total game cycle and the theoretical return to player is lower than the minimum percentage, then the game does not meet this standard). This standard also extends to games such as keno, where the continuous playing of any spot combination results in a theoretical return to player lower than the minimum percentage.
- c) Double-up or Gamble. The Double-up or Gamble options shall have a theoretical return to the player of 100%.

#### 2.3.18 Progressive Game Calculations.

Whenever a progressive jackpot is offered as part of a gaming device payout, the base amount shall be included in the theoretical payout percentage for purposes of determining whether the minimum percentage requirements are met. The laboratory shall provide the base amount in the certification letter as the lowest configuration. This rule shall not supercede the requirements of sections 2.3.21 through 2.3.23 ("Prizes in Lieu of Jackpots").

#### 2.3.19 Multiple Percentages.

If the game offers multiple theoretical hold percentages, the gaming device shall require a key chip or equivalent secure method that requires physical access to the logic area to change the percentage.

#### 2.3.20 Odds.

The highest single advertised award on each gaming device shall occur statistically, at least once in every 25,000,000 games unless a progressive jackpot, in which case at least once in 50,000,000 games. This requirement does not apply to multiple awards on the same game play where the aggregate award is not advertised. This requirement shall not apply to games that make it possible for a player to win the highest win multiple times through the use of free games. This requirement does apply to each wager that wins the maximum award.

# **Prizes in Lieu of Jackpots**

# 2.3.21 Payout Percentage.

The return to the player over of the complete game cycle shall conform to the theoretical pay-out percentage. No prize shall be included in determining whether a gaming device meets the established minimum payout requirement unless the player is given an option to claim a jackpot. In that case, the jackpot will be used to compute the payout percentage.

#### 2.3.22 Prize Amount.

The value of a prize and how the Gaming Facility Operator determined the value shall be clearly displayed in close proximity to all gaming devices that offer prizes.

# 2.3.23 Linked Gaming Devices.

Gaming devices which are linked to offer the same prize shall have the same probability of hitting the combination that will award that prize (adjusted for denomination of play and number of coins bet).

#### **Bonus Games**

#### 2.3.24 Bonus Games.

Each game that contains a bonus round, including a game within a game, shall comply with the following:

- a) Display clearly to the player which game rules apply to the current game;
- b) Display clearly to the player sufficient information, except for progressive displays per Chapter 2, to indicate the current status towards the triggering of the next bonus game (i.e., if the game requires obtaining several events or symbols towards a feature, the number of events or symbols needed to trigger the bonus shall be indicated along with the number of events or symbols collected at any point);
- c) The game shall not adjust the likelihood of a bonus occurring based on the history of awards obtained in previous games;
- d) If a game's bonus is triggered after accruing a certain number of events or symbols or combination of events or symbols, the probability of obtaining like events or symbols shall not deteriorate as the game progresses; and
- e) The game shall make it clear to the player when the player is in a bonus mode.
- f) At no time during a bonus round shall a player be able to insert items of value or transfer credit from the credit meter in excess of the game cycle's maximum bet.

# **Extended Play**

# 2.3.25 General Statement.

Extended plays shall meet the following conditions:

- If the cycle for extended play awards is different from the base game cycle, then the extended play awards occurring within the base game's cycle shall be calculated as part of the game's payout; and
- b) The game shall display the rules of play for the extended play awards, the rewards associated with each extended play prize, and the character combinations that will result in specific payouts. For extended play prizes achieved by obtaining specific game results, the progress of the prize shall be displayed.

#### 2.3.26 Auto-initiation.

Auto-initiation of a bonus game or extended play is prohibited except in the following circumstances:

- a) the player is presented with a choice and specifically acknowledges the intent to have the gaming device auto-initiate the bonus or extended play by means of a button press or other physical action; or
- b) if the bonus round or extended play provides only one choice to the player (e.g., press button to spin wheel), the gaming device auto-initiates the bonus round or extended play only after a time-out period sufficient for the player to review options and make an informed decision.
- c) An auto-initiation feature shall be explained in the paytable and help screens. For non-video gaming devices, an auto-initiation feature shall be explained on the glass.

# **Extra Credits Wagered During Bonus Games**

# 2.3.27 General Statement.

If a bonus or feature game requires extra credits to be wagered and the game accumulates all winnings (from the trigger and the feature) to a temporary "win" meter (rather than directly to the credit meter), the game shall:

- a) provide a means where winnings on the temporary meter, up to the maximum bet amount, can be bet via the credit meter to allow for instances where the player has an insufficient credit meter balance to complete the feature;
- b) transfer all credits on the temporary meter to the credit meter upon completion of the game feature:
- c) provide a player an opportunity not to participate; and
- d) not exceed the maximum bet limit established in the Compact.

# Multiple Games on a Gaming Device

# 2.3.28 Selection of Game For Display.

- a) The method by which a player selects or discards a particular game for play on a multi-game gaming device shall be clearly explained on the gaming device so a reasonable player can understand it:
- b) A multi game gaming device shall at all times make a player aware of which game has been selected for play and is being played, as applicable.
- c) The player shall not be forced to play a game just by selecting that game. The player shall be able to return to the main menu.
- d) It shall not be possible to start a new game before the current play is completed and all relevant meters have been updated.
- e) The set of games offered to a player for selection and the pay tables for those games may be changed only by a secure method.
- f) No changes to the set of games offered to the player for selection (or to the paytable) are permitted while there are credits on the player's credit meter or while a game is in progress.

# **Electronic Metering within a Gaming Device**

#### 2.3.29 General Statement.

All gaming devices shall contain electronic meters for the purpose of reporting to the MCS and recording all significant events and other metering information required by the Compact and Appendices. Each meter shall be at least 99.99% accurate.

# 2.3.30 Credit Meter Units and Display.

The credit meter shall display credits or currency value. Currency shall be displayed with two places to the right of the decimal point.

# 2.3.31 Credit Meter - Incrementing.

The value of every award, except all handpays or prizes, shall be added to a player's credit meter at the end of each game.

# 2.3.32 Progressives Jackpots.

Progressive jackpots may only be added to a player's credit meter if:

- a) the credit meter displays the currency amount;
- b) the progressive meter is incremented to the full credit amounts; or
- c) the currency amount of the jackpot is converted to credits in a manner that does not mislead a reasonable player or cause accounting imbalances.

#### 2.3.33 Collect Meter.

Each gaming device shall include a collect meter that shows the number of credits or cash collected by a player. The number of credits or cash collected shall be subtracted from the player's credit meter and added to the collect meter.

#### 2.3.34 Software Meter Information Access.

The software meter information shall only be accessible by an authorized person.

# 2.3.35 Electronic Accounting and Occurrence Meters.

Electronic accounting meters shall be at least eight digits in length. If the meter is being used in dollars and cents, at least eight digits shall be used for the dollar amount. The meter shall roll over to zero upon the next occurrence, any time the meter is higher that the maximum read-out value for that meter. Occurrence meters shall be at least three digits in length and roll over to zero upon the next occurrence, any time the meter is higher that the maximum read-out value for that meter. Each gaming device shall include the following electronic accounting meters:

- a) coins-in (or cash in), which shall cumulatively count the total amounts wagered during game play, except credits that are won during the game and that are subsequently wagered in a Double-up mode.
- b) coins-out (or credit out), which shall cumulatively count all amounts won by the player at the end of the game, that were not paid by an attendant, including amounts paid by a ticket printer. This meter shall not increment for bills inserted and cashed out (used as a change machine).
- c) drop, which shall maintain a cumulative count of the number of coins that have been diverted into a drop bucket and credit value of all bills and tickets or coupons inserted into the bill acceptor for play.
- d) jackpots, which shall reflect the cumulative amounts paid by an attendant for progressive and non-progressive jackpots.
- e) cancelled credit, which shall reflect the cumulative amounts paid by an attendant that are in excess of the credit limit and residual credits that are collected. Printer games do not require a cancelled credit meter unless, a "printer limit" option exists on the game.

Each gaming device shall include the following occurrence meters:

- a) games-played, which shall display the cumulative number of games played since the last RAM clear
- b) cabinet door, which shall display the number of times the cabinet door was opened since the last RAM clear.
- c) drop door, which shall display the number of times the drop door or the bill acceptor door was opened since the last RAM clear.
- d) progressive occurrence meter, which shall count the number of times each progressive meter is activated.

#### 2.3.36 Multi-Game Game Specific Meters.

In addition to the electronic accounting meters required above, each individual game available for play shall have at least a "Credits Bet" meter and "Credits Won" meter in either credits or dollars. Even if a

"Double-up or Gamble" game is lost, the initial win amount/credits bet amount shall be recorded in the game specific meters. Alternatively, there may be separate meters that account for the Double-up or Gamble information. Either way, the method of metering shall be understood on the screen by a reasonable person.

# 2.3.37 Double-Up or Gamble Meters.

For each type of Double-up or Gamble offered, there shall be two meters to indicate the amount doubled and the amount won, which shall increment every time a Double-up or Gamble occurs. If a gaming device does not supply accounting for the Double-up or Gamble information, the feature shall not be enabled for use.

#### **Residual Credits**

# 2.3.38 General Statement.

Each gaming device shall provide a method for a player to retain and recover residual credits.

# **Communications**

#### 2.3.39 General Statement.

Each gaming device shall communicate with an MCS.

# **Error Conditions**

#### 2.3.40 General Statement.

Each gaming device shall detect and display error conditions. Upon detection the tower light shall illuminate or an audible alarm shall sound and the gaming device shall communicate the condition to an MCS. All error conditions shall be cleared by an attendant except the following which shall be cleared by the gaming device:

- a) coin-in jam;
- b) door open (including bill acceptor);
- c) currency-in jam; and
- d) power reset.

#### **Error Conditions**

# 2.3.41 Error Condition Description.

The manufacturer shall affix inside each gaming device a list of error codes, and a description of their meanings. This requirement does not apply to video-based gaming devices; however, video gaming devices shall display meaningful text regarding all error conditions.

# **Program Interruption & Resumption**

#### 2.3.42 Interruption.

After a program interruption, a gaming device shall recover to the status it was in immediately prior to the interruption occurring.

#### 2.3.43 Restoring Power.

If a gaming device is powered down while in an error condition, upon restoring power, an error message shall be displayed and the gaming device shall remain locked-up. This is not required if power down is used as part of the error reset procedure, or if on power up or door closure the gaming device checks for the error condition and detects that the error no longer exists.

#### 2.3.44 Simultaneous Inputs.

The program shall not be adversely affected by the simultaneous or sequential activation of the various inputs and outputs, such as "play buttons," which might cause malfunctions or invalid results.

# 2.3.45 Resumption.

On program resumption, the following procedures shall be performed:

- a) Any communications to an external device shall not begin until the program resumption routine, including self-tests, is completed successfully;
- b) Control programs shall test themselves for possible corruption due to failure of the program storage media.
- c) The integrity of all critical memory shall be checked.

# 2.3.46 Microprocessor Controlled Reels.

Microprocessor controlled reels shall re-spin automatically to the last valid play-mode result when the play mode is re-entered, and the reel positions have been altered. A mis-index condition of the rotating reels that affects the outcome of a game shall result in a reel spin error. The standard for determining a mis-index condition shall be when the final position of a reel is off by more than one-half of the height of the smallest symbol excluding blanks. Microprocessor controlled reels shall be monitored to detect malfunctions such as a reel which is jammed or is not spinning freely, or any attempt to manipulate a reel's final resting position and shall generate in an error condition.

# **Door Open/Close**

# 2.3.47 Required Door Metering.

The MCS shall detect and meter access to the following doors or secure areas:

- a) all external doors;
- b) drop box door;
- c) bill acceptor door; and
- d) logic door (if switches have been installed for this purpose).

# 2.3.48 Door Open Procedures.

When a gaming device's main door is opened, the game shall cease play, enter an error condition, display an appropriate error message, disable coin acceptance and bill acceptance, and either sound an alarm or illuminate the tower light or both.

#### 2.3.49 Door Close Procedures.

When a gaming device's main door is closed, the game shall return to its original state and display an appropriate error message, until the next game has ended.

# **Taxation Reporting Limits**

#### 2.3.50 General Statement.

If a win requires the issuance of a W2-G form or equivalent a game shall lock-up and shall require a handpay

# **Test/Diagnostic Mode**

#### 2.3.51 General Statement.

When in a test mode, any test that incorporates credits entering or leaving a gaming device shall be completed on resumption of normal operation. There shall not be any test mode that increments any of the electronic meters. Any credits on the gaming device that were accrued during the test mode shall be cleared before the test mode is exited.

#### 2.3.52 Exiting From Test/Diagnostic Mode.

When exiting from test mode, the game shall return to the original condition it was in when the test mode began.

#### 2.3.53 Test Mode.

Each gaming device shall clearly indicate when it is in test mode.

# Last Game Recall

# 2.3.54 Number of Last Plays Required.

Information on at least the last five games shall be retrievable on the operation of a suitable external key-switch, or another method that is not available to the player.

# 2.3.55 Last Play Information Required.

Last play information shall provide all information required to fully reconstruct the last five games. All values shall be displayed. If a progressive jackpot was awarded, it is sufficient to indicate the progressive jackpot was awarded and not display the value. This information shall include the final game outcome, including all player choices and bonus features and the results of Double-up or Gamble (if applicable).

# 2.3.56 Bonus Rounds.

The five game recall shall reflect bonus rounds in their entirety. If a bonus round lasts a certain number of events, each with separate outcomes, each of the events shall be displayed with its corresponding outcome if the outcome results in a jackpot. The recall shall also reflect position-dependent events if the outcome results in a jackpot. For games that may have infinite free games, there shall be a minimum of 50 games recallable.

# **Software Verification**

#### 2.3.57 General Statement.

Each gaming device shall have the ability to allow for an independent integrity check of the gaming device's critical files from an outside source. This can be accomplished by the medium being able to be removed and authenticated by a third-party device, or having an interface port for a third-party device to authenticate the critical files. The integrity check method shall provide a means for field testing the software to identify and verify the critical files. The integrity check method shall be agreed to by the Tribal Gaming Office and the State Gaming Agency prior to approval of the gaming device.

# Chapter 4 Multi-Station Devices

#### 2.4.1 General Statement.

A multi-station device is a gaming device that incorporates more than one player station, and has only one random number generator, which is controlled by a master terminal. The master terminal, containing the game's CPU, shall house the game display, which is shared among the player stations. A multi-station device shall constitute a single gaming device for purposes of determining the number of gaming devices at a gaming facility provided that the total number of multi-station devices in a gaming facility does not exceed 2.5% of the gaming devices permitted in that gaming facility--otherwise the individual player stations will each be deemed to be a gaming device. Each player station shall meet the technical standards outlined throughout this Appendix, including machine identification and metering. Each multi-station device shall meet the requirement for live game correlation.

#### 2.4.2. Player Stations.

A multi-station device shall utilize no more than six player stations. Each player station though which players play simultaneously with other players at other player stations of a multi-station device shall not:

- a) have a means to individually determine game outcomes;
- b) be disconnected from the central processing unit of the multi-station device that determines the game outcomes for all player stations without rendering that player station inoperable; and
- c) separately contain a random number generator or other means to individually determine the game outcome.

The wagering limitations, pursuant to the provisions of the Compact, shall apply separately to each player station. With respect to a multi-station device that depicts the play of craps, the wagering limitation shall be applied to permit a player to place up to the maximum wager on any combination of betting opportunities offered before each roll of the dice with the opportunity to continue to place up to

the maximum wager before each subsequent roll of the dice, whether or not the player wins or losses, until the player decides to discontinue play or the game cycle is ended. Players will be permitted to build up their wagers on subsequent rolls of the dice similar to the way that live game of craps is played. With respect to a multi-station device that depicts the play of blackjack, double-down, splitting and insurance bets during game play are considered to be an integral part of the actual game and are not considered to be multiple wagers, but instead multiple hands within the play of a single game cycle. With respect to a multi-station device that depicts the play of roulette, the wagering limitation shall be applied to permit a player to place up to the maximum wager on any combination of betting opportunities offered within the play of a single game cycle.

# Chapter 5 Slot Tournaments

# 2.5.1 Gaming Device Settings.

Each gaming device used in a single slot tournament shall utilize all the same electronics and gaming device settings.

# **Categories of Slot Tournament Gaming Devices**

# 2.5.2 Permanent Slot Tournament Gaming Devices.

Gaming devices that are located on the gaming floor and in play for player use may be used for tournament play. All gaming devices used for slot tournament play shall be equipped with software that has slot tournament capability.

#### 2.5.3 Software.

No gaming device enabled for slot tournament play shall accept coins or tokens, nor pay out coins or tokens, but shall utilize credit points only. Slot tournament credits shall have no cash value. Notwithstanding section 2.1.56, gaming devices for slot tournament play shall not increment any electronic or electro-mechanical meters, and all gaming devices in the tournament shall have identical tournament software. The percentage requirements as addressed in section 2.3.17 are waived for tournament games.

# Part III Progressive Gaming Devices

Chapter 1 Overview

# 3.1.1 Progressives Defined and Sections Applied.

As used in this part:

- a) "stand-alone progressive gaming device" means a stand-alone progressive gaming device is a single progressive game that is not linked to other progressive gaming devices;
- b) "multiple gaming device progressive" means one or more gaming device(s) that offer common progressive jackpots and that is linked to the same progressive controller within a single gaming facility; and
- c) "multi-site progressive gaming devices" means progressive gaming devices that are interconnected to more than one gaming facility.
- d) "progressive meter" means an electro-mechanical or electronic device, including a video display, if applicable, that shows a payoff that increments at a set rate of progression as credits are wagered.
- e) "progressive controller" means hardware and software that controls communications among the devices that calculate the values of the progressive jackpots and displays the information within a progressive gaming device link and on the associated progressive meter.

# Chapter 2 Progressive Component Requirements

# 3.2.1 Application of Compact.

In addition to complying to the requirements of gaming devices generally, progressive gaming devices also shall comply with all standards of this Part III.

# **Progressive Meter/Display Requirements**

#### 3.2.2 General Statement.

One or more progressive gaming devices shall be linked to a progressive meter. For games that have progressive jackpots such as a mystery jackpot, the payoff does not have to be displayed to the player, although there shall be an indication as to this type of feature on the game.

# 3.2.3 Progressive Displays.

Each progressive meter, excluding any meters for mystery jackpot, shall be visible to a player of a progressive gaming device. A player shall know that he or she is playing a progressive game and not have to play the maximum bet amount to find out. Each progressive meter that is displayed, excluding mystery jackpot meters, shall display the current total of the progressive jackpot in the monetary value or credits (the monetary value may vary for Multi-Site Progressive Displays.) Credits contributed to the system after the jackpot occurs in real time, but during the same polling cycle, shall be deemed to have been contributed to the progressive amount prior to the jackpot. Credits contributed to the system subsequent to the jackpot message being received, as well as credits contributed to the system before the jackpot message is received by the system, but registered after the jackpot message is received at the system, will be deemed to have been contributed to the progressive amount of the next jackpot, if applicable.

# 3.2.4 Updating Displays.

The progressive meter shall display the winning value within 30 seconds of the jackpot being recognized by the MCS. The system jackpot meter of paced updating displays shall display the winning value after the jackpot signal is received from the MCS. If no jackpot display capability is operating at a gaming facility the facility shall immediately shut down the progressive system. Any device that has a feature that doubles, triples, etc., any win shall have a sign that states the progressive award will not be doubled or tripled if won during the feature, if this is the intention.

# 3.2.5 Progressive Display Digital Limitations.

If the progressive meter increments to its maximum display amount, the meter shall freeze and remain at the maximum value until awarded to a player.

# 3.2.6 Alternating Displays.

Multiple items of information to be displayed on a gaming device or progressive meter may be displayed in an alternating fashion.

# **Progressive Controller Requirements**

# 3.2.7 Setting the Jackpot Amounts.

The method by which system jackpot parameter values are modified or entered shall be secure and monitored by the Tribal Gaming Office. All progressive gaming devices or any approved progressive system component shall display, upon request, the following information for each progressive jackpot offered (if applicable):

- a) current value;
- b) limit;
- c) hits (number of times this progressive was won);
- d) wins (total value of wins for this progressive or a history of the last 25 progressive hits);
- e) base;
- f) overflow (amount exceeding the limit);

- g) increment;
- h) secondary increment;
- i) hidden increment:
- j) reset value; and
- k) the participating gaming devices.

# 3.2.8 Progressive Controller Program Interruption.

After a program interruption, the software shall recover to the status it was in immediately prior to the interruption occurring.

# 3.2.9 Progressive Resumption.

On program resumption, the following procedures shall be performed as a minimum requirement:

- a) Any communications to an external device shall not begin until the program resumption routine, including self-tests, is completed successfully;
- b) The control program shall utilize an integrity check, preferably a secured hashing method such as MD5 or SHA to authenticate that the program and/or support files have not been corrupted or altered prior to use or loading.
- c) The integrity of all critical memory shall be checked.

# 3.2.10 Communications for Signaling of a Jackpot.

There shall be a secure, two-way communication protocol between the main game processor board and progressive controller. In addition, the progressive system shall:

- a) send to the gaming device the amount that was won for metering purposes; and
- b) constantly update the progressive display as play on the link is continued.

# 3.2.11 Monitoring of Credits Bet.

During the "Normal Mode" of progressive gaming devices, the progressive controller shall continuously monitor each gaming device on the link for credits bet and shall multiply the same by the rate of progression and denomination in order to determine the correct amounts to apply to the progressive jackpot. This shall be at least 99.99% accurate.

# 3.2.12 Progressive Controller Required Meters.

The progressive controller or other approved progressive system component shall keep the following information in non-volatile memory. Each meter shall be at least 99.99% accurate and shall display on demand:

- a) The number of progressive jackpots won on each progressive level if the progressive display has more than one winning amount;
- b) The cumulative amounts paid on each progressive level if the progressive display has more than one winning amount;
- c) The maximum amount of the progressive payout for each level displayed;
- d) The minimum amount of the progressive payout for each level displayed; and
- e) The rate of progression for each level displayed.

# 3.2.13 Controller and Display Functions During Progressive Jackpot Win.

When a progressive jackpot is recorded on a gaming device attached to the progressive controller, the progressive controller shall allow for the following to occur on either or both the gaming device and the progressive display:

- a) display of the winning amount;
- b) display of the gaming device identification that caused the progressive meter to activate if more than one gaming device is attached to the controller;
- c) the progressive controller shall automatically reset to the reset amount and continue normal play; and
- d) display the new progressive values that are current on the link.

#### 3.2.14 Base Progressive Jackpot Amount.

The base amount of a progressive jackpot shall begin at or above a jackpot for that particular gaming device that makes the entire meter payout greater than the minimum percentage requirement.

#### 3.2.15 Progressive Controller Error Conditions.

When a controller error occurs, it shall alternate the displays, or equivalent, between the current amount and an appropriate error message that is visible to all players, or alert the gaming facility to the error condition. If the following events occur, the game that is using the progressive shall be disabled, and an error shall be displayed on the progressive meter, other approved progressive system component or gaming device:

- a) during a communication failure;
- b) when there have been multiple communication errors;
- c) when a controller verification failure occurs;
- d) when a controller's RAM or PSD (program storage device) mismatch or failure occurs;
- e) when the current amount is larger than the limit;
- f) when the jackpot configuration is lost or is not set;
- g) if there has been an unreasonable amount of credits bet (an unreasonable amount of credits bet is defined by the progressive set up which is based on the number of bets and number of gaming device); or
- h) if the game meters are validated against the controller's meters and they do not reconcile.

#### 3.2.16 Jackpots Limits.

The controller may be configured with a limit on the jackpot of a progressive gaming device, if the limit imposed is equal to or greater than the jackpot payout on the gaming device at the time the limit is imposed.

#### **Progressive Jackpots**

#### 3.2.17 General Statement.

A progressive jackpot is an award for a winning or non-winning (e.g., mystery jackpot) play of the game. A bonus game where certain circumstances are required to be satisfied prior to awarding a fixed bonus award is not a progressive gaming device and is not subject to these procedures.

#### 3.2.18 Swapping Progressive Levels.

For progressive systems offering multiple levels of jackpots, the player shall always be paid the higher progressive amount, if a particular combination is won that should trigger the higher paying jackpot. This may occur when a winning combination may be evaluated as more than one of the available paytable combinations (i.e., a Flush is a form of a Straight Flush and a Straight Flush is a form of a Royal Flush). Therefore, there may be situations where the progressive levels shall be swapped to ensure the player is being awarded the highest possible progressive value based on all combinations the outcome may be defined as.

#### 3.2.19 Gaming Device Requirements When Progressive Awarded.

When a progressive jackpot has been awarded, the gaming device or other approved progressive component shall perform the following:

- a) an appropriate message shall be displayed;
- b) unless the jackpot is transferred to the player's credit meter, the gaming device shall lock-up until the jackpot has been paid by the attendant;
- c) all progressive-related meters shall be updated; and
- d) a light or alarm shall alert the player upon winning a mystery jackpot.

#### 3.2.20 Progressive Gaming Device Metering Requirements.

Each gaming device on the link shall update its electronic meters to reflect the winning progressive jackpot amount. Progressive jackpots requiring the issuance of a W2-G form or equivalent shall require a manual handpay by an attendant. Progressive wins may only be added to the credit meter if either:

- a) the credit meter is maintained in monetary value or credits;
- b) the progressive meter is incremented to whole credit amounts; or
- c) the jackpot, in monetary value, is converted to credits on transfer to the player's credit meter in a manner that does not mislead the player. The conversion from monetary value to credits shall always round up.

#### **Progressive Percentage Requirements and Odds**

#### 3.2.21 Linked Gaming Device Odds.

Each gaming device on the link shall have the same probability of winning the progressive, adjusted for the denomination played.

### **Chapter 3 Multiple-Site Progressive**

#### **Multi-Site Central Computer Requirements**

#### 3.3.1 Security of Central Computer System.

The central computer facility for multi-site progressive gaming devices shall be equipped with a electronic surveillance system.

#### 3.3.2 Communication for Multi-Site Gaming Devices.

Multi-site gaming device communication shall be a secure non-shared, dedicated line.

#### 3.3.3 Data Collection Requirement.

Multi-site systems shall ensure that security information and the amounts wagered information is communicated at least once every 15 seconds.

#### 3.3.4 Multi-Site Encryption Method.

All multi-site systems shall utilize an encryption method that has been certified by a laboratory.

#### 3.3.5 Multi-Site Monitoring and Other MCS System Requirements.

The MCS shall monitor the meter readings and error events of each gaming device at all the tribe's facilities. If the MCS utilizes hard disk peripherals, it shall be capable of on-line data redundancy.

#### 3.3.6 Central Computer System Power Supply.

The central computer facility for multi-site progressive gaming devices shall be equipped with non-interruptible power supply that will allow the central computer to conduct an orderly shut down if the power is lost.

#### 3.3.7 Communication Failure.

Each multi-site progressive gaming device shall disable itself and suspend play if communication is lost between the local site and the gaming device. If communication is lost between the local site and the central computer site, the Tribal Gaming Office shall determine whether to continue play but under no circumstances shall play continue for more than twenty-four hours. Once communication is reestablished, the system-wide totals shall be updated.

#### 3.3.8 Central Computer System Required Reports.

Each of multi-site progressive gaming device system shall generate the following reports:

- a) progressive summary: a report indicating the amount of, and basis for, the current jackpot amount (the amount currently in play);
- b) aggregate report: a report indicating the balancing of the system with regard to system wide totals; and

c) payoff report: a report that clearly indicates the method of arriving at the payoff amount. This shall include the credits contributed beginning at the polling cycle, immediately following the previous jackpot and shall include all credits contributed up to and including the polling cycle which includes the jackpot signal.

#### 3.3.9 Multi-Site System Meter Readings.

All meter reading data shall be obtained in real time in an on-line, automated fashion. The multi-site system shall return meter readings on all gaming devices attached to the multi-site system. Each meter reading shall be identical to the meter information retained in the gaming device accounting meters. Manual reading of meter values shall not be substituted for these requirements.

#### 3.3.10 Multi-Site System Door Monitoring.

The multi-site progressive system shall monitor the main door(s) of the gaming device and report to the central computer system immediately.

## Part IV The On-Line Monitoring and Control System (MCS)

## Chapter 1 System Component Requirements Interface Element Requirements

#### 4.1.1 General Statement.

Each gaming device installed in each gaming facility shall have an interface element installed inside a secure area within the gaming device that provides for communication between the gaming device and an On-line Monitoring and Control System (MCS). The MCS shall allow real time read only query access from the JMS or, in situations where the read-only query response time is greater than 15 minutes, shall provide for a duplicate database, real time data streaming or other equivalent alternative data transfer means.

#### 4.1.2 Metering Requirements.

All electronic meters shall be capable of being read at the interface element level. If not directly communicating EGD meters, the interface element must maintain separate electronic meters or meters of sufficient length to preclude loss of information from rollover as provided for in the connected EGD. These electronic meters shall be capable of being reviewed on demand, at the interface element level, via an access method authorized by the Tribal Gaming Office.

#### 4.1.3 Battery Backup Requirements.

The interface element shall retain all required meter information after a power loss for at least 180 days. If this data is stored in volatile RAM, a battery backup shall be installed within the interface element.

#### 4.1.4 Information Buffering and Integrity Checking.

The interface element shall provide a means to preserve all mandatory meter and significant event information until such time as it can be communicated to the MCS. There shall be a method to check for corruption of all meter data storage locations.

#### 4.1.5 Address Requirements.

The interface element shall allow for the association of a unique identification number for each gaming device on the MCS. This identification number shall be used by the MCS to track all mandatory information of the associated gaming device. The MCS shall not allow for duplicate EGD file entry of this identification number.

#### Front End Controller and Data Collector Requirements

#### 4.1.6 General Statement.

The MCS shall possess a server, or a device of similar capability, that allows the State Gaming Agency and the Tribal Gaming Office Joint Monitoring System access to data on a read-only basis consistent with Section 3(b)(5) of the Compact. The MCS may possess a front end processor that gathers and relays all data from the connected data collectors to the associated databases(s).

#### **Server and Database Requirements**

#### 4.1.7 General Statement.

The MCS shall possess at least one server, networked system or distributed systems that can direct overall operation and associated databases that store all entered and collected system information. All MCS critical files shall reside on the server, networked system or distributed systems.

#### 4.1.8 System Clock.

The MCS shall maintain an internal clock that reflects the current date and time and provides for the following:

- a) time stamping of significant events;
- b) reference clock for reporting; and
- c) time stamping of configuration changes.

#### 4.1.9 Synchronization Feature.

If multiple clocks are supported, the MCS shall synchronize all clocks in all MCS components.

#### 4.1.10 Database Access.

The MCS shall have no capability whereby a Gaming Facility Operator can bypass system auditing controls and modify the MCS database directly.

#### **Workstation Requirements**

#### 4.1.11 Jackpot/Fill Functionality.

Each MCS shall have a program that captures and processes every hand pay message from each gaming device. Hand pay messages shall be created for:

- a) single wins (jackpots);
- b) progressive jackpots; and
- c) accumulated credit cash outs (canceled credits)

that result in hand pays.

#### 4.1.12 Jackpot and Fill Slip Information.

The MCS shall provide the following information for each jackpot and fill slip, as applicable:

- a) alphanumeric slip identifier;
- b) date and time;
- c) gaming device number;
- d) denomination;
- e) amount of fill;
- f) amounts of jackpot, accumulated credit, and additional pay;
- g) W2-G form or equivalent is required;
- h) total coins played and game outcome of jackpot (this may either be generated automatically by the MCS or manually inputted); and
- i) provision for required signatures.

#### 4.1.13 Surveillance/Security Functionality.

The MCS shall provide a query program that enables comprehensive searching of historical data for the previous 14 days through archived data or restoration from backup. The query program shall have the ability to perform on-line comprehensive searching based on at least the following parameters:

- a) date and time range;
- b) unique interface element/gaming device identification number; and
- c) numbers of significant events and their ranges.

#### 4.1.14 Gaming Device Management Functionality.

The MCS shall have a gaming device file. Access and report controls shall be in place to ensure accuracy of this information.

#### 4.1.15 Accounting Functionality.

The MCS shall have a program that allows controlled access to all financial information. This program shall be able to create all reports required by sections 2.2.8, 4.2.2, and 7.2.1 as well as all reports required by internal control standards.

### Chapter 2 System Requirements

#### **Communication Protocol**

#### 4.2.1 General Statement.

Gaming devices and MCSs shall only utilize communication protocols, which:

- a) ensure at least an accuracy 99.99% of all messages received; and
- b) employ encryption for communication of all data that may affect revenue. The encryption algorithm shall employ variable keys or similar methodology to preserve secure communication.

#### **Significant Events**

#### 4.2.2 General Statement.

All significant events generated by each gaming device shall be sent via the interface element to the MCS. All significant events shall be stored in the MCS database, which shall include at least the following:

- a) date and time when the event occurred;
- b) identity of the gaming device that generated the event;
- c) a unique code that defines the event; and
- d) a brief text that describes the event in English.

#### 4.2.3 Standard Events.

Standard events shall be collected from each gaming device and transmitted to the MCS for storage.

#### 4.2.4 Priority Events.

Priority events shall be collected from each gaming device and transmitted to the MCS for storage. The MCS shall provide for timely notification of priority events, which shall in no instance be longer than one hour after the event occurred.

#### Meters

#### 4.2.5 Required Meters.

Each gaming device shall communicate the following metering information to the interface element:

- a) total in (credits-in);
- b) total out (credits-out);
- c) total items dropped (including all coins, bills and tickets);
- d) total value of all coins, bills and tickets/coupons dropped;

- e) hand-pays;
- f) cancelled credits (if supported on gaming device);
- g) total monetary value and quantity of all bills accepted;
- h) total value and quantity of all items accepted;
- i) total number of each bill accepted per denomination;
- j) total value and quantity of all tickets/coupons accepted;
- k) games-played;
- cabinet door events;
- m) drop door events;
- n) bill acceptor openings; and
- ticket box openings.

Upon agreement between the Tribal Gaming Office and the State Gaming Agency, paragraph c may be satisfied by a reporting of the total of each category of item dropped.

#### 4.2.6 Clearing Meters.

No interface element shall have a mechanism whereby an unauthorized user can cause the loss of stored accounting meter information.

#### 4.2.7 Reporting Requirements.

Significant event and metering information shall be stored on the MCS in a database and accounting reports shall be generated by querying the stored information.

#### Security Requirements

#### 4.2.8 Access Control.

The MCS shall support either a hierarchical role structure whereby a user and password define the program or individual menu item access or logon program/device security based strictly on the user and the password or Personal Identification Number. There shall be a provision for system administrator notification, user lockout, and audit trail entry, after four unsuccessful login attempts.

#### 4.2.9 Data Alteration.

The MCS shall not permit, without supervised access controls, the alteration of any accounting or event log information that was properly communicated from a gaming device. In the event financial data is changed, an audit log shall be generated, which shall consist of at least the following:

- a) data element altered;
- b) data element value prior to alteration;
- c) data element value after alteration;
- d) time and date of alteration; and
- e) user login.

#### Additional System Features

#### 4.2.10 Gaming Device Program Verification Requirements.

The MCS shall verify gaming device software and communications attributes at least monthly and when a user initiates a powering up of a gaming device or the installation of a new gaming device. The MCS shall verify data communications error check algorithms.

#### **Backups and Recovery**

#### 4.2.11 General Statement.

There shall be redundant copies of each log file and system database on the MCS with support for backups and restoration.

#### 4.2.12 Recovery Requirements.

In the event of a catastrophic failure and the MCS cannot be restarted in any other way, it shall be possible to reload the MCS from the last viable backup and fully recover the contents of that backup. This MCS reload shall include all necessary information required for full MCS operation consisting of at least the following:

- a) significant events;
- b) accounting information;
- c) auditing information; and
- d) specific gaming facility and gaming floor.

#### 4.2.13 Redundancy and Modularity.

The MCS shall have sufficient redundancy and modularity so that, if any single component or part of a component fails, gaming can continue.

#### Part V Future Technology

#### 5.1.1 Changes in Technology.

Because the parties recognize the need to address changes in technology, at a minimum, every five years following the effective date of this Compact, the State and Tribe agree to negotiate amendments to this Appendix to accommodate changes in technology, including a schedule for implementation of those changes. The changes to technology may relate to gaming devices and on-line systems, including the ability of those systems to verify electronic signatures.

#### 5.1.2 Arbitration.

If the State and the Tribe are unable to come to an agreement within one year of negotiations, the State and the Tribe shall submit last best offers to binding arbitration. The State and the Tribe shall collaborate on a joint statement of facts relevant to the issues involved to be submitted to the arbitrator. If the State and the Tribe are unable to agree, each shall separately submit a statement of facts. In choosing between the last best offers the arbitrator shall choose the offer that best stays within the mainstream of technology and ensures effective regulation and monitoring. The arbitrator shall also consider the following:

- a) current industry standards;
- b) the promotion of, and compatibility with, future technology;
- c) which plan best serves the public;
- d) which plan is most reliable;
- e) which plan is most cost effective;
- f) which plan can be executed in the most expeditious manner, and
- g) capital investments made by the Tribe.

#### 5.1.3 Cost of Limited Upgrade to MCS.

The State agrees to pay from tribal contributions the additional cost, if any, of upgrading the Gaming Facility Operator's MCS to provide electronic signature verification capability, including hardware, software, and installation.

#### 5.1.4 Earlier Agreements Allowed.

Nothing in this Part prohibits the State and the Tribe from negotiating amendments to this Appendix at an earlier date.

### Part VI Methods and Procedures

#### Chapter 1

#### Approval of Gaming Devices, Components, and Software

#### 6.1.1 Tribal Gaming Office and State Gaming Agency Approval.

The Gaming Facility Operator shall obtain approval from the Tribal Gaming Office before receiving any gaming device, component or software. Approval shall not be given until manufacturers, distributors and suppliers have provided all information necessary for a laboratory to determine whether a production sample of the gaming device, component or software, accompanied by full manufacturer's engineering change order documentation, complies with all requirements of this Compact and Appendix.

#### 6.1.2 Laboratory Certification.

The Tribal Gaming Office and the State Gaming Agency shall receive from the laboratory a certification letter that contains findings, conclusions and an opinion whether a gaming device, component or software complies with all requirements of this Compact and Appendix. Neither the State nor the Tribe shall be required to pay the cost of laboratory or on-site testing. The State Gaming Agency reserves the right to require additional testing and to invoke the provisions of sections 6.1.6 and 6.1.7 if any gaming device is determined to be non-complying.

#### 6.1.3 Testing.

Certification of gaming devices, components, and software shall occur in two phases:

- a) in the laboratory, and
- b) on-site by the laboratory if the Tribal Gaming Office, State Gaming Agency or laboratory believes that on-site test is necessary to ensure compliance with this Compact and Appendices.

#### 6.1.4 Modifications.

Modifications to any previously certified gaming device, component or software shall not occur until a laboratory has certified that the modification complies with all requirements of this Compact and Appendix.

#### 6.1.5 Manufacturer's Notifications.

The State Gaming Agency may sanction a vendor or deny or revoke vendor certification if a manufacturer, supplier, or distributor:

- a) fails to provide the State Gaming Agency five days advance notice of any shipment for any gaming facility in the State of a gaming device, component, or software (Tribal Gaming Office notification requirements may differ);
- b) sells, or provides for play or any other gaming purpose, gaming devices, components, or software to a Gaming Facility Operator:
  - 1. prior to laboratory certification; or
  - 2. that it knows, or reasonably should know, will malfunction in any manner that affects game play or the accuracy of the meters; or
- c) fails to immediately notify the State Gaming Agency in writing of the discovery of any probable malfunction that affects game play or the accuracy of the meters in a gaming device, components or software approved for use in the State.

#### **Non-Complying Gaming Devices**

#### 6.1.6 General Statement.

The following are declared to be non-complying gaming devices unless remedied pursuant to section 6.1.7:

a) all gaming devices operated in violation of this Compact or appendices.

- b) all gaming devices to which the State Gaming Agency has been denied access for inspection purposes.
- c) all gaming devices not reported as required by this Appendix.
- d) all gaming devices that do not report to the MCS as required by this Appendix.
- e) all gaming devices shown by history or operation or notice from a laboratory or manufacturer to be susceptible to cheating.

#### 6.1.7 Remedies for Non-Complying Gaming Devices.

Gaming devices found to be non-complying shall be so designated in writing by the State Gaming Agency. Within 24 hours of receipt of such written designation, the Tribal Gaming Office shall either:

- a) accept the allegation of non-compliance, remove the gaming devices from play and take appropriate action to ensure that the manufacturer, distributor or other responsible person cures the problem; or
- b) arrange for the inspection of the contested equipment, or single example thereof, by a mutually agreed upon laboratory. Any contested gaming device shall be removed from play until such game has been found by the laboratory to be in compliance. If the laboratory finds that the gaming device is non-complying, the non-complying gaming device shall be permanently removed from play unless modified to meet the requirements of this Compact and appendices.

Such gaming devices removed from play under this paragraph may be returned to play only after being tested, approved, certified and reported to the State Gaming Agency.

#### 6.1.8 Exception for a Non-Complying MCS.

Notwithstanding section 6.1.7, if the MCS is found to be in non-compliance with the Compact or this Appendix, it shall not be required to be removed but the Gaming Facility shall develop and implement a procedure within 24 hours to mitigate against loss of any information communicating to or from the MCS. Within 72 hours the Tribal Gaming Office and the State Gaming Agency shall mutually agree upon a laboratory to inspect the MCS to determine whether compliance has been achieved. If compliance has not been achieved by that time, the MCS shall be shutdown for use for play until it does comply with the Compact and this Appendix.

#### 6.1.9 Tribal Gaming Office Authority Regarding Non-complying Gaming Devices.

The Tribe shall authorize the Tribal Gaming Office to:

- a) disable, or require to be removed from use, any gaming device shown by history or operation or notice from a laboratory or manufacturer to be susceptible to cheating or otherwise out of compliance with this Compact or Appendix; and
- b) require the manufacturers and Gaming Facility Operator to take whatever actions are necessary to ensure that their gaming device are not susceptible to cheating methods and are in compliance with the Compact and appendices.

### Chapter 2 Hardware

#### 6.2.1 General Statement.

All hardware that controls game play or game outcome shall be directly shipped to and controlled by the Tribal Gaming Office unless otherwise designated by the Tribal Gaming Office. The Tribal Gaming Office shall notify the State Gaming Agency of all hardware shipped to any place other than the Tribal Gaming Office.

#### **Hardware Requirements**

#### 6.2.2 Cabinet Wiring.

Upon request the manufacturer shall supply the Tribal Gaming Office and the State Gaming Agency with schematics and manuals which together show all cable routing and connections.

#### Program Memory, RAM and Non-Volatile Devices Used to Store Program Memory

#### 6.2.3 Requirements for Downloadable Software.

All information concerning downloadable software shall be forwarded to the Tribal Gaming Office which shall forward the information to the State Gaming Agency prior to the downloading process. All downloading of software shall take place in the presence of Tribal Gaming Office personnel. Downloadable software shall not include anything that can affect the outcome of the game. The Tribal Gaming Office and State Gaming Agency shall approve the method of downloading FLASH software. The State Gaming Agency shall not unreasonably withhold approval.

#### **Contents of Critical Memory**

#### **Unrecoverable Critical Memory**

#### 6.2.4 General Statement.

An uncorrectable corruption of RAM shall result in a RAM error. Clearing the RAM error shall require a full RAM clear performed by a representative of the Gaming Facility Operator and require the presence of a Tribal Gaming Office representative. Electro-mechanical and electronic meter readings shall be manually recorded prior to clearing RAM on each gaming device. Documentation shall be forwarded to the Tribal Gaming Office and accounting department.

## Mechanical Components Used for Displaying of Game Outcomes Credit Redemption

#### 6.2.5 Cancel Credit.

If credits are collected, and the total credit value is greater than or equal to the hopper limit for hopper games or printer limit for printer games, the gaming device shall lock up until the credits have been paid, and the handpay is cleared by an attendant.

#### **Printers**

#### 6.2.6 Payment By Ticket Printers.

Each gaming device that has a printer used to make payments may pay the player by issuing a printed ticket. If the taxation threshold is reached on any single play when using a ticket printer, then the ticket shall not be redeemed at any place other than through human interaction.

#### 6.2.7 Tickets.

A system shall be used to validate the ticket, and the MCS shall retain ticket information at least as long as the ticket is valid at that gaming facility.

#### 6.2.8 Access Logs.

A machine entry access log shall be maintained and stored inside each gaming device. Upon agreement of the Tribal Gaming Office and the State Gaming Agency, the machine entry access log may be in written or electronic form. This log shall contain the name of each person entering the gaming device with employee identification number, signature or initials, date, time and reason for entry.

### Chapter 3 Ticket Validation Systems

#### 6.3.1 Payment by Ticket Printer.

Payment by ticket printer as a method of credit redemption on a gaming device is only permissible when the gaming device is linked to a MCS that allows validation of the printed ticket, or to a validation system certified by a laboratory as conforming to the requirements of this Compact and Appendix.

#### **Ticket Issue and Redemption**

#### 6.3.2 Cashier/Change Booth Operation.

Each user shall have a unique password and all passwords shall be changed at least quarterly with the changes documented. Once a ticket is presented for redemption, the cashier shall:

- a) scan the bar code via an optical reader, or equivalent, or input the ticket validation number manually; and
- b) print a validation receipt after the ticket is electronically validated.

#### 6.3.3 Off-line Ticket Redemption.

If the gaming device communication system temporarily fails and validation information cannot be sent to the validation system or MCS, an alternate method of payment shall be provided.

#### Reports

#### 6.3.4 Reporting Requirements.

The following validation reports shall be reconciled with all validated and/or redeemed tickets:

- a) tickets issued;
- b) tickets redeemed;
- c) tickets outstanding;
- d) tickets dropped;
- e) jackpot tickets issued;
- f) transaction detail, which shall be available from the validation system, showing all tickets generated by a gaming device and all tickets redeemed by the validation terminal or gaming device; and
- g) cashier report, which details the sum of tickets paid by the cashier or validation unit.

#### Security

#### 6.3.5 Database and Validation Component Security.

Once the validation information is stored in the database, the data shall not be altered in any way. The validation system database shall be encrypted or password-protected and shall possess a non-alterable user audit trail to prevent unauthorized access. Each user shall have their own unique password and all passwords shall be changed at least guarterly with the changes documented.

### Chapter 4 Software

#### 6.4.1 Introduction.

All software shall be directly shipped to the Tribal Gaming Office.

#### 6.4.2 Par Sheet.

A manufacturer Par sheet for the current configuration or copy shall be maintained inside each gaming device or at a location mutually agreed upon by the Tribal Gaming Office and the State Gaming Agency.

#### **Communications Protocol**

#### 6.4.3 General Statement.

A gaming device shall be turned off no later than 24 hours after communication between the gaming device and the MCS has been lost. The gaming device may only be turned back on when communication to the MCS has been tested and restored. All testing results shall be forwarded to the Tribal Gaming Office and the State Gaming Agency.

### Chapter 5 Slot Tournaments

#### 6.5.1 General Statement.

A slot tournament is an organized event utilizing slot machines that permits a player or players to either purchase or be awarded the opportunity to engage in competitive play against other players.

#### 6.5.2 Number of Gaming Devices during Slot Tournaments.

The number of Gaming Devices used specifically for Slot Tournaments will be counted towards the amount of devices per facility as provided for in the Compact. If the facility is at the maximum number of authorized gaming devices, the same amount of gaming devices that are to be used in the Slot Tournament will be turned off on the gaming floor until such time that the tournament is completed. The correct number of gaming devices will be verified by the Tribal Gaming Office to ensure compliance with Section 3(c) of the Compact.

#### 6.5.3 Categories of Slot Tournament Gaming Devices.

- a) Category 1 Conversions of Existing Gaming Devices on the Gaming Floor Conversion to tournament programs will entail replacing the machine glass and reel strips as well as replacing the existing logic board with a tournament logic board which contains the EPROMs with the approved tournament software. The Tribal Gaming Office will maintain the Tournament logic boards and EPROMs when not in use.
- b) Category 2 Stored Tournament Gaming Devices
  Slot Tournament gaming devices that are configured for Slot Tournaments shall be kept in
  storage until such time the tournament is to be played. The Tribal Gaming Office will maintain
  the approved Slot Tournament EPROMs and logic boards when the gaming devices are in
  storage.
- c) Category 3 Permanent Slot Tournament Gaming Devices
  Stand-alone approved gaming devices that are located on the gaming floor and in play for patron use can be used for tournament play. These gaming devices must be equipped with an approved program that has slot tournament capability. This slot tournament program shall be enabled only by the use of a key-chip, which is maintained by the Tribal Gaming Office.

#### 6.5.4 Tournament Software, Hardware, Game Programs and EPROMs.

All modified or converted gaming devices used in Slot Tournament Play shall be tested for compliance with the standards set forth in this Appendix and the Compact prior to being returned to use for normal non-tournament play. All Slot Tournament software, hardware, and EPROMs shall be tested and approved by the laboratory prior to use. The State Gaming Agency and the Tribal Gaming Office shall be sent verification of approval from the gaming laboratory prior to the shipment of any gaming device tournament equipment to the gaming facilities. All gaming devices used in a single tournament shall utilize the same electronics and machine settings. All tournament gaming devices shall utilize credit points only. Tournament credits shall have no cash value and shall be used to determine the point standings of participants involved in the tournament.

#### 6.5.5 EPROM, Tournament Software, Game Programs, and Tournament Logic Board Security.

The follow standards apply to EPROMs, tournament software, game programs and tournament logic board security:

- a) All tournament EPROMs, software, game programs, and tournament logic boards shall be shipped directly to and stored by the Tribal Gaming Office prior to the tournament, and shall be returned to the Tribal Gaming Office at the close of the tournament.
- b) All tournament EPROMs, software, or game programs used in the tournament shall be approved by the laboratory for play in the State of Arizona.
- c) Gaming device EPROMs shall be taped by the Tribal Gaming Office. This tape shall only be broken and removed by a Tribal Gaming Office employee. Each logic board containing EPROMs shall be secured with a lock. The key to that lock shall be controlled by the Tribal

Gaming Office and shall be secured in a locked key box within the Tribal Gaming Office. Each logic board compartment shall also be sealed with Tribal Gaming Office tape. Upon discovery of broken or damaged Tribal Gaming Office security tape, slot department personnel shall immediately notify appropriate Tribal Gaming Office personnel.

- d) The State Gaming Agency may perform an inspection of each gaming device converted for tournament play both prior to the tournament and after the gaming devices have been reconverted for regular play.
- e) Gaming device software, in which the tournament program is activated by key-chip, will be permitted pending approval of the gaming laboratory. Key-chips will be maintained and controlled by the Tribal Gaming Office.

#### 6.5.6 Operational Standards.

The following tournament play standards shall be adhered to:

- a) An employee of the Gaming Facility Operator shall be designated as the tournament captain/leader, and have decision authority over any disagreement during the course of the tournament. The Tribal Gaming Office shall be immediately notified of any disagreement between players or players and scorekeepers. In addition, any patron dispute involving the Gaming Facility Operator's refusal to pay alleged winnings to a patron shall be subject to the provisions of Section 14 of the Compact.
- b) The functions of tournament captain/leader, payout verifier, and scorekeeper shall be segregated.
  - 1. The tournament captain/leader shall not accept entry fees or verify points.
  - 2. The verifier shall not assume the duties as the tournament captain/leader or tournament cashier.
  - 3. The scorekeeper shall not verify payouts or assume the duties as tournament cashier.
- c) The floor area to be used for the Slot Tournament shall be separated from the rest of the floor by using ropes and standards (poles) or a means, which separates the tournament players from the remainder of the gaming floor by creating a physical barrier.

#### 6.5.7 Tournament Rules.

The rules for conduct of each tournament shall be reduced to writing and shall be:

- a) Provided to the Tribal Gaming Office at least 14 days prior to the tournament.
- b) Furnished to all tournament players prior to the beginning of the tournament.
- c) Conspicuously posted in a location visible for all patrons to see.

An informational copy of the slot tournament rules shall be provided to the State Gaming Agency at least fourteen (14) days prior to the scheduled start of each tournament. This shall also include a list of the gaming devices that will be turned off and the list of gaming devices to be used in the slot tournament. The list of gaming devices to be used in the tournament shall include the following information:

- a) Gaming device manufacturer;
- b) Gaming device serial number;
- c) Gaming facility number;
- d) Slot tournament program name;
- e) Slot tournament program number;
- f) Slot tournament program Kobetron signature;
- g) Gaming laboratory slot tournament program type; and
- h) Name of individual that conducted Kobetron verification.

#### 6.5.8 Content of Rules.

The rules shall include but are not limited to:

a) Qualification or selection criteria which limit the eligibility of tournament players.

- b) Regulations of the tournament (i.e., beginning and ending times, number of rounds, lapse of rounds, entry fee, elimination factors, cash handling procedures, etc.)
- c) Procedures for handling gaming device malfunctions during play.
- d) Procedures for handling a tie at the conclusion of tournament play.
- e) Prizes to be awarded and an exact description of each prize.
- f) Procedures for the use of stand-by tournament gaming devices in the event of a machine malfunction.

#### 6.5.9 Conversion.

Prior to converting the approved gaming devices for the tournament:

- a) Drop buckets and bill validator boxes shall be fully dropped, and must comply with internal control standards and procedures for the drop and count of gaming devices.
- b) Any funds in the hoppers shall be counted, placed into a bag that will be sealed and tagged with the machine number/location, date of removal, amount in the bag, name and identification number of the person sealing the bag. The bags shall be placed in a designated location in the vault or other secured location. A report or log detailing this information shall be provided to the Tribal Gaming Office.
- c) All tournament gaming devices are to be disconnected from the on-line game management system and remain disconnected with surveillance coverage over all gaming devices at all times during the course of the tournament. Coin-in, coin-out, drop, and jackpot meters (both "hard" and "soft") must not increment in tournament play.
- d) No gaming device, while enabled for tournament play, shall accept nor pay out coins, tokens, vouchers, currency or other means of value used to initiate game play.
- e) All gaming device "hard" and "soft" meters shall be read before and after tournament play, and maintained by the Accounting Department. A copy of the meter readings shall be provided to the Tribal Gaming Office and available to the State Gaming Agency upon request.

#### 6.5.10 Accounting Department.

The Accounting Department employee(s) who records the meter readings shall be independent of the drop and count teams. Prior to the start of tournament play, and upon receipt of the meter-reading summary, the Accounting Department shall review all meter readings for reasonableness using preestablished parameters.

#### 6.5.11 Unreasonable Meter Readings.

Prior to the start of tournament play and the final preparation of statistical reports, meter readings, which do not appear reasonable, shall be reviewed with gaming device department employees, and exceptions documented so that meters can be repaired or clerical errors in the recording of meter readings can be corrected.

#### 6.5.12 Scorekeeping.

Scorekeepers shall tally the individual scores of each participant on a tournament scorecard. Both the scorekeeper(s) and the participant shall sign the scorecard to ensure agreement before clearing gaming device meters.

#### 6.5.13 Tournament Conclusion.

At the conclusion of the tournament and prior to converting the approved gaming devices for regular play:

a) All gaming device "hard" and "soft" meters shall be recorded and maintained by the Accounting Department. The Accounting Department shall review all meter readings for reasonableness and reconciliation to meter readings obtained prior to tournament play. Meter readings, which do not appear reasonable, shall be reviewed with gaming device department employees and exceptions documented so that meters can be repaired or clerical errors in the recording of meter readings can be corrected. A copy of the meter readings and reconciliation shall be provided to the Tribal Gaming Office and available to the State Gaming Agency upon request.

- b) All tournament gaming devices that have been converted back to normal play shall be reconnected and tested for communication to the on-line game management system before individual non-tournament play can resume. Non-tournament EPROMs and game programs that have been re-installed shall be Kobetroned and taped by the Tribal Gaming Office.
- c) The hopper funds, which are stored in a secured area, belonging to the tournament gaming devices, shall be returned to the appropriate gaming device.
- d) The approved gaming devices shall be reconfigured to accept and pay out coins, tokens, vouchers, or currency as prior to the tournament conversions.

#### 6.5.14 Entry Fees.

The following entry fee standards shall be complied with:

- a) Players invited to play may register in advance and pay an entry fee to hold their place in the tournament.
- b) Entry fees may be paid over the telephone, via mail, or in person.
- c) All entry fees shall be documented by recording on a slot tournament entry fee log. At a minimum, the following information shall be documented:
  - 1. Patron's name
  - 2. Date
  - 3. Type of tournament
  - 4. Dollar amount
  - 5. Method of payment
- d) One slot tournament entry fee log shall be completed for each shift.
- e) At the end of each shift, a department supervisor or management employee and an employee independent of the slot department shall calculate the total amount collected as entry fees on the slot tournament entry fee log.
- f) The department supervisor or management employee and the independent person shall independently from each other, count the monies collected from the entry fees and compare the amount to the total on the slot tournament entry fee log, noting any variances. The count of the monies shall be conducted in an area where surveillance can observe the count.
- g) The department supervisor or management employee and the independent person shall sign the slot tournament entry fee log attesting to the amount counted and recorded.
- h) The monies and the slot tournament entry fee log shall be immediately delivered to the Cage or Vault. A cashier shall independently count the monies and compare the total counted to the total amount recorded on the slot tournament entry fee log.
- i) If the amounts do not agree, the cashier and the department supervisor or management employee shall recount the monies until all differences are reconciled.
- j) When the amounts agree, the cashier shall sign the slot tournament entry fee log. The cashier shall receipt the monies into the cashier cage or vault and record the total amount on a daily cash summary report as slot tournament entry fees.
- k) The department supervisor or management employee shall immediately deposit the slot tournament entry fee log in a locked accounting box to which only Accounting personnel have access or immediately deliver the log to the Accounting Department.

#### 6.5.15 Payouts.

The following payout standards shall be adhered to:

- a) Gaming operation management shall establish written procedures that include controls for tournament payouts.
- b) The cost of all prizes and monies paid to winner(s) shall be recorded on a multi-part form used only for slot tournaments. The slot tournament prize form shall be sequentially numbered, both alpha and numeric.
- c) A slot tournament prize form shall be completed for each winner.

- d) A department supervisor or management employee shall complete the form which includes the following information at a minimum:
  - 1. Date and time
  - 2. Name of patron
  - 3. Dollar amount of payout
- e) The department supervisor or management employee shall sign the form.
- f) The patron shall sign the form upon receipt of the prize.
- g) A verifier, an employee independent of the employee completing the form, shall sign the form verifying the amount stated on the slot tournament prize form agrees with the amount given to the patron.
- h) One copy of the slot tournament prize form shall be taken by the verifier and immediately deposited in a locked accounting box or delivered directly to the Accounting Department.
- i) A second copy of the slot tournament prize form shall be retained with the bank from which the prizes were disbursed.
- j) IRS reporting/withholding requirements may apply to prizes and payouts awarded during slot tournament play and must be followed.

#### 6.5.16 Accounting.

The following accounting procedures shall be adhered to:

- a) Once Accounting receives the forms, they shall be verified for accuracy.
- b) The total amount, by shift and day, collected for the tournament shall be recorded on a slot tournament summary form, and the grand total shall be calculated.
- c) The total amount awarded in prizes shall be documented on the slot tournament summary form.
- d) A copy of the slot tournament summary form shall be provided to the Tribal Gaming Office and available to the State Gaming Agency upon request.

#### 6.5.17 Surveillance.

Surveillance coverage of tournament activity shall include unobstructed views of all tournament gaming devices and participants during tournament play for the purpose of ensuring compliance with tournament rules.

### Chapter 6 Inspection, Installation, and Modification

#### 6.6.1 Tribal Gaming Office Inspections of Gaming Devices.

Unless otherwise agreed to by the Tribal Gaming Office and the State Gaming Agency, the Tribal Gaming Office shall conduct monthly inspections of no less than a random 5% sample of the gaming facility's gaming devices or 25 randomly selected gaming devices in use for play at each of the Tribe's Gaming Facilities. Unless the Tribal Gaming Office discovers one or more Compact violations while conducting its inspections and testing, which shall be reported to the State Gaming Agency within 48 hours pursuant to Section 6(g) of this Compact, the Tribal Gaming Office shall provide the Gaming Facility Operator and the State Gaming Agency a written report detailing when and where the inspections and testing took place, what gaming devices were inspected and tested, and the complete results of the inspections and testing within 10 days of completing any inspections and testing. The Tribal Gaming Office shall adhere to the procedures in this chapter conducting its inspections and testing.

#### 6.6.2 State Gaming Agency Inspections of Approved Gaming Devices.

The State Gaming Agency may conduct inspections and testing of up to 50 randomly chosen gaming devices in use for play in each of the Tribe's Gaming Facilities up to five times per year. The State Gaming Agency shall conduct inspections and testing in the following manner:

a) The State Gaming Agency shall provide notice of its intent to inspect and test gaming devices to the Tribal Gaming Office at the time they arrive at the gaming facility. The State Gaming Agency

- may observe the gaming devices it plans to inspect and test while the Tribal Gaming Office assembles the personnel necessary to accompany them.
- b) At least one Tribal Gaming Office inspector and one gaming operation slot technician shall accompany the State Gaming Agency during inspections and testing but shall not impede or compromise these activities. The Tribal Gaming Office inspector shall have the ability to immediately access all non-public areas and gaming devices.
- c) The Tribal Gaming Office and the Gaming Facility Operator shall have a reasonable amount of time to assemble those personnel necessary or requested by the State Gaming Agency to accompany the State Gaming Agency during gaming device inspections and testing.
- d) Once the Tribal Gaming Office has assembled the necessary personnel, the State Gaming Agency may begin inspecting and testing gaming devices.
- e) If there is a delay in assembling necessary personnel or if some other problem arises with respect to the inspection or testing of gaming devices, the Tribal Gaming Office, Gaming Facility Operator, and the State Gaming Agency shall, in a good faith, attempt to resolve any problems. If a dispute arises which cannot be resolved, the Tribe and the State may avail themselves of such remedies as are provided for under this Compact.
- f) The State Gaming Agency shall conduct inspections and testing in accordance with the gaming device inspection and testing procedures in this chapter.
- g) The State Gaming Agency shall not unduly interfere with the Gaming Operation while observing, inspecting, or testing gaming devices.

#### 6.6.3 Additional Inspections of Approved Gaming Devices.

The Tribal Gaming Office may conduct gaming device inspections and testing in addition to those provided in this chapter to the extent it deems appropriate. The State Gaming Agency may conduct gaming device inspections and testing in addition to those provided for in this chapter in the event that:

- a) it has determined that within the previous six months one or more gaming devices were not operating in compliance with this Compact;
- b) it observes gaming devices operating out of compliance with this Compact or receives credible information from any source that one or more gaming devices are currently operating out of compliance with this Compact;
- c) it receives a request for additional inspections and testing from the Tribal Gaming Office; or
- d) it gives the Tribal Gaming Office two hours advance notice of the inspections and testing. In conducting such inspections and testing, the State Gaming Agency shall not unduly interfere with the Gaming Operation while observing, inspecting, or testing gaming devices.

#### 6.6.4 Remedies for Discovery of Non-complying Gaming Devices.

If the State Gaming Agency determines that a gaming device on the gaming floor and in play is not in material compliance with the requirements of this Compact or its Appendices, the State Gaming Agency may require that for one year the Gaming Facility receive approval prior to use for play from the State Gaming Agency before using or continuing to use any gaming devices for play. If the State Gaming Agency requires preapproval, the schedule prescribed in this chapter for inspection and testing shall not apply, but, rather, a reasonable schedule which accommodates both the State Gaming Agency and the Tribal Gaming Office shall apply. The State Gaming Agency may also require that any or all of the notices required in this chapter be given to the State Gaming Agency. The State Gaming Agency shall grant pre-approval if the gaming devices meet the requirements of this Compact and its Appendices and required notices are given. If the State Gaming Agency determines that each gaming device has been in material compliance with the Compact or its appendices for a full year, the requirement of State Gaming Agency pre-approval shall be removed but may be imposed again if material non-compliance is determined to again exist.

#### 6.6.5 Gaming Device Inspections and Tests.

Inspections and tests of the installation, and modification, of gaming devices, components and software shall be conducted to determine compliance with the Compact and Appendices. These inspections and tests shall include but not be limited to:

- a) verify gaming device number, serial number, State number, type and name of game, denomination of each game;
- b) inspect manual machine entry access log, which shall be maintained and stored inside each gaming device. This log shall contain the name of each person entering the gaming device with employee identification number, signature or initials, date, time and reason for entry;
- c) review and photocopy pertinent MCS reports;
- d) verify logic board physical security;
- e) verify all software and hardware in the gaming device has been certified by a laboratory and has received final approval by the Tribal Gaming Office and the State Gaming Agency. Security tape or other tamper proof security devices shall be affixed to all game control devices and software by the Tribal Gaming Office or State Gaming Agency. The gaming control device or software shall be tested by the following if security tape is broken:
  - 1. gaming laboratory approval list; and
  - Kobetron test or other approved method of testing.
- f) verify software corresponds with game type;
- g) conduct paytable tests and review Par sheets to determine proper configuration and operation;
- h) conduct tests confirming that gaming device functions and items of monetary value are being reported to the MCS;
- i) conduct gaming device door tests to verify door openings are being reported to the MCS;
- j) verify all gaming device parameters coincide with the MCS and Par sheets;
- k) inspect to ensure that all gaming devices are installed according to the recommendations of the manufacturer and per all applicable installation and safety codes;
- I) conduct communication audit tests; and
- m) inspect progressive entry authorization log which shall be maintained and stored inside the progressive controller area. This log shall contain the name of each person entering the progressive controller area with employee identification number, signature or initials, date, time and reason for entry.

#### 6.6.6 Progressive Gaming Device Inspections.

All inspection, installation, and modification procedures shall apply to progressive gaming devices.

#### 6.6.7 MCS Inspections.

The MCS shall be tested to verify that the MCS is operating within the parameters that were tested by the laboratory and approved by the Tribal Gaming Office and State Gaming Agency.

### **Chapter 7 Progressive Components**

#### 6.7.1 Changes to the Jackpot Amount.

The Gaming Facility Operator shall post a conspicuous notice of the limit at or near the gaming device or gaming devices to which the limit applies. The Gaming Facility Operator shall not reduce the amount displayed on a progressive jackpot meter or otherwise reduce or eliminate a progressive jackpot unless:

- a) a player wins the progressive jackpot;
- b) the gaming facility adjusts the progressive jackpot meter to correct a malfunction or to prevent the display of an amount greater than the limit imposed, and the gaming facility documents the adjustment and the reasons for it as follows:
  - 1. the gaming facility documents the distribution;

- 2. any progressive jackpot offering where the gaming facility distributes the incremental amount does not require that more money be played on a single play to win the progressive jackpot than the gaming device from which the incremental amount is distributed;
- 3. any progressive jackpot offering which the incremental amount is distributed complies with the minimum theoretical payout requirement;
- 4. the distribution is completed within 30 days after the progressive jackpot is removed from play.
- c) upon presentation of circumstances to the State Gaming Agency, and by mutual agreement with the Tribal Gaming Office, the gaming facility may reduce, eliminate, transfer, distribute, or follow a procedure not otherwise described in this subsection.

#### 6.7.2 Jackpot Limits.

Jackpot limits shall be posted on or near the gaming device to which the limit applies.

#### **Progressive Jackpots**

#### 6.7.3 Progressive Gaming Device Metering Requirements.

Progressive jackpots requiring the issuance of a W2-G form or equivalent shall require a manual handpay by an attendant.

#### 6.7.4 Base Amount.

The base amount of each progressive jackpot offered at the gaming facility shall be documented and maintained by the Tribal Gaming Office and the accounting department.

### Chapter 8 Multiple Site Progressives

#### **Multi-Site Central Computer Requirements**

#### 6.8.1 Jackpot Win During Poll Cycle.

If a jackpot is recognized in the middle of a system-wide poll cycle, the overhead display may contain a value less than the aggregated jackpot amount calculated by the central computer system. The credit values from the remaining portion of the poll cycle shall be received by the central computer system but not the gaming facility in which case the jackpot amount paid shall always be the higher of the two reporting amounts.

#### **Multi-Site Progressive Procedures**

#### 6.8.2 General Statement.

Procedures shall be developed, implemented and documented for the following:

- reconciliation of meters and jackpot payouts;
- b) collection drop of gaming device funds;
- c) jackpot verification and payment procedures that include a Tribal Gaming Office representative be present for independent jackpot verification and payment;
- d) system maintenance;
- e) system accuracy;
- f) system security; and
- g) system failures including:
  - 1. the gaming facility;
  - 2. the central computer site;
  - 3. failures in communications; and
  - 4. backup and recovery.

#### **Multi-Site Jackpots**

#### 6.8.3 Multiple Jackpots During the Same Polling Cycle.

When multiple jackpots occur, where there is no definitive way of knowing which jackpot occurred first, they will be deemed to have occurred simultaneously; and therefore all shall be paid at full value.

### Chapter 9 Miscellaneous

#### 6.9.1 Logic Door Keys.

Keys to the logic door and logic area shall be controlled and maintained by the Tribal Gaming Office.

#### 6.9.2 Slot Tournament Program.

If slot tournament play is used it shall be enabled by a method controlled and maintained by the Tribal Gaming Office. All software and hardware shall be shipped directly to and controlled by the Tribal Gaming Office.

#### 6.9.3 Access to the Progressive Controller.

Each progressive controller used with progressive gaming devices shall be located in a secured environment allowing only authorized access. Access to the controller shall be maintained and reported to the Tribal Gaming Office. There shall be an authorization log within each progressive controller area and the log shall be completed by each person gaining access to the controller. This log shall contain the name of person entering the controller with employee identification number, signature or initials, date, time and reason for entry.

#### Part VII

#### Methods and Procedures for The On-Line Monitoring and Control System (MCS)

# Chapter 1 System Component Requirements Interface Element Requirements

#### 7.1.1 Information Buffering and Integrity Checking.

If unable to communicate the required information to the MCS, the interface element must provide a means to preserve all mandatory meter and significant event information until such time as it can be communicated to the MCS. Gaming device operation may continue until critical data will be overwritten and lost. There must be a method to check for corruption of the above data storage locations.

#### 7.1.2 Configuration Access Requirements.

The interface element setup/configuration menu shall only be available via a secure access method as authorized by the Tribal Gaming Office.

#### 7.1.3 Database Access.

The Gaming Facility Operator shall maintain secure access control to the MCS databases at all times.

### Chapter 2 System Requirements

#### **Reporting Requirements**

#### 7.2.1 Required Reports.

Reports shall be generated on a schedule determined by the Gaming Facility Operator that includes daily, weekly, monthly, year-to-date, and life-to-date period reports generated from stored database information. These reports shall at a minimum meet internal control requirements and consist of at least the following:

- a) net win report for each gaming device;
- b) monthly and year-to-date gaming device revenue summary;

- c) drop comparison reports for each item dropped (all coins, bills and tickets) with variances for each item;
- d) metered vs. actual jackpot comparison report;
- e) theoretical hold vs. actual hold comparison with variances; and
- f) significant event log for each gaming device.

#### **Security Requirements**

#### 7.2.2 Access Control.

Each user shall have a unique password and all passwords shall be changed at least quarterly with the changes documented.

#### **Additional System Features**

#### 7.2.3 FLASH Download Requirements.

The MCS may utilize FLASH technology to update interface element software when all of the following requirements are met:

- download functionality is password protected at no lower than the supervisor level, and each user shall have a unique password and all passwords shall be changed at least quarterly with the changes documented;
- b) a separate non-alterable audit log is used to record the time and date of a download including the version of code downloaded and the user who initiated the download;
- all modifications to the download executable and FLASH files receive certification from a laboratory that the modifications comply with the standards of this Compact and Appendix. The laboratory shall perform a FLASH download to the system at the laboratory and shall verify its operation. The laboratory shall then assign verification algorithms to any relevant executable code and FLASH files that can be verified by the State Gaming Agency and the Tribal Gaming Office. All FLASH files shall be available to the State Gaming Agency and the Tribal Gaming Office for verification;
- d) the State Gaming Agency receives assurance from the manufacturer that the FLASH download process works properly; and
- e) The FLASH download process authenticates the downloaded files to ensure that the transfers were successful.

#### 7.2.4 Remote Access Requirements.

The MCS may utilize password controlled remote access only when all the following requirements are met:

- a) each user has a unique password and all passwords are changed at least quarterly with the changes documented;
- b) a remote access user activity log is maintained at both the gaming facility and the manufacturer's facility with each depicting logon name, time, date, duration, and activity while logged in;
- c) there is no remote user administration;
- d) there is no access to the database other than information retrieval using existing functions;
- e) there is no unauthorized access to the operating system; and
- f) if remote access is continuous, a network filter is installed to protect MCS access.

### Part VIII

#### Gaming Device and MCS Standards and Inspections

#### 8.1.1 Gaming Device Minimum Standards.

Each gaming device and MCS purchased before the effective date of this Appendix shall comply with all the technical standards for gaming devices as required in appendices to the tribal-state compact entered into by the State and the Tribe prior to November 5, 2002. Each gaming device and MCS

purchased on or after the effective date of this Compact shall comply with all the technical standards for gaming devices and MCSs as required in this Appendix. Within three years of the effective date of this Compact, all gaming devices and MCSs shall comply with all the technical standards for gaming devices and MCSs as required in appendices to this Compact unless the State Gaming Agency agrees otherwise in writing.

#### 8.1.2 Notice of Installation to the Tribe.

The Gaming Facility Operator shall provide the Tribal Gaming Office written notice that it intends to install or re-install, or Modify any gaming device, including any newly purchased, leased, or previously approved gaming device, for its use for play prior to placing such gaming device into play at any gaming facility. The notice shall identify the gaming device and when and where the Gaming Facility Operator would like to place it into play and shall be sufficiently detailed and provided in time to allow the Tribal Gaming Office to schedule employees to inspect and test such device prior to use for play.

#### 8.1.3 Notice of Installation to the State Gaming Agency.

The Tribal Gaming Office shall provide a tentative date to the State Gaming Agency of when a gaming device is to be installed, re-installed, or Modified to allow the State Gaming Agency to coordinate inspection and testing. This shall occur at least 30 days prior to the date scheduled for use for play. The Tribal Gaming Office shall provide a firm date and time to the State Gaming Agency at least five days prior to use for play. If the State Gaming Agency does not arrive on that date, the Gaming Facility Operator may put the gaming device to use for play. If the State Gaming Agency arrives on that date and the gaming device is not ready for inspection and testing at the designated time, the Tribal Gaming Office shall provide another firm date and time to the State Gaming Agency at least five days in the future.

#### 8.1.4 Tribal Gaming Office Gaming Device Approval Prior to Use for Play.

All installations, reinstallations, and Modifications of gaming devices shall be approved by the Tribal Gaming Office prior to use for play in a gaming facility. All gaming devices shall have affixed security tape or equivalent from the Tribal Gaming Office on the EPROM or equivalent while in use for play in a gaming facility. The Tribal Gaming Office's inspections and testing shall be conducted in accordance with the inspection testing procedures in Part 6, Chapter 6 of this Appendix. Upon completing their initial inspections and testing, the Tribal Gaming Office shall either approve the gaming device or deny approval for use for play of the gaming device. If the Tribal Gaming Office approves a gaming device, it shall affix an identifying approval seal on the device.

#### 8.1.5 State Gaming Agency Approval.

When the State Gaming Agency approves a gaming device for either use for play or continued use, it shall affix security tape to the EPROM or equivalent and an identifying approval seal on the gaming device. If the State Gaming Agency denies approval for use for play or continued use the State Gaming Agency shall, at the conclusion of inspection and testing, orally explain to the Gaming Facility Operator and the Tribal Gaming Office why the State Gaming Agency is denying approval. The State Gaming Agency shall issue a written statement to the Gaming Facility Operator and the Tribal Gaming Office setting forth the grounds for denial of approval. State Gaming Agency approval means that the State Gaming Agency agrees with the Tribal Gaming Office that the gaming device complies with the provisions of this Compact and its appendices.

#### 8.1.6 Notice of Repairs or Replacement.

If a gaming device malfunctions or otherwise requires any repairs or replacement which affects the game play, game outcome, or the MCS, the Gaming Facility Operator shall provide the Tribal Gaming Office notice within 48 hours of completing the repairs or replacement. The notice shall identify which gaming device malfunctioned, explain the nature of the malfunction, and provide details regarding the extent of the repairs. The Tribal Gaming Office shall provide to the State Gaming Agency by the 5th of each month a report, written, electronic, or generated from the MCS, listing the repairs and replacements performed the previous month.

#### 8.1.7 Notice of Removal or Transfer of Gaming Devices.

The Gaming Facility Operator shall provide the Tribal Gaming Office five days written notice if it intends to remove any gaming devices from the gaming facility or to allow such devices to be removed. The notice shall identify which gaming devices will be removed from the gaming facility and give details regarding when they will be removed and where, and to whom they will be taken. The Tribal Gaming Office shall promptly remove and discard all affixed approval seals from any gaming devices removed from the gaming facility and shall provide the State Gaming Agency written verification of having discarded the seals. In the event that any gaming devices will be transferred within the gaming facility in which they were previously located or to another gaming facility owned by the Tribe, the Gaming Facility Operator shall provide the Tribal Gaming Office written notice within 24 hours prior to transferring the gaming devices identifying which gaming devices were transferred, giving details regarding their new location, and verify with documentation that the gaming devices are reporting correctly to the MCS, have passed coin acceptor, bill acceptor, and door tests, and are covered by surveillance in their new location. The Tribal Gaming Office shall provide the State Gaming Agency with all of the information the Gaming Facility Operator is required to provide the Tribal Gaming Office within 48 hours of removal or transfer.

If gaming devices are merely moved to storage, the Gaming Facility Operator is only required to provide the Tribal Gaming Office written notice within 24 hours of the serial number of the gaming devices stored and no seals need be removed. The Tribal Gaming Office is only required to provide this written notice to the State Gaming Agency within 48 hours of receiving it.

#### 8.1.8 Inspections of Gaming Devices.

Inspections of gaming devices shall be conducted pursuant to Part 6, Chapter 6 of this Appendix.